

SOLINTEG C&I ESS Introduction

IntegOne PTH Series

AC Output Power: 75/80/99/100/125kW

Battery Capacity: 208/225/241/257kWh

 www.solinteg.com

V1.0
Date: 22.07.2026



CONTENTS

1

ADVANTAGES

2

PARAMETERS

3

SYSTEM
SOLUTIONS

4

COMMISSIONING

SOLINTEG

01

Advantages

SOLINTEG

Core Advantages for PTH

6-in-1 Highly Integrated Design

MPPT + Battery + PCS + STS + EMS + Smart Meter

Superior Heat Dissipation via AC/DC Separation

Optimized thermal management for higher efficiency & longer lifespan

Ultimate Safety with 5-Layer Fire Protection

Early warning, pack & cabinet aerosol, water fire, and explosion relief

Utmost Reliability in Long-Duration Backup

2 to 3.5 hours with one cluster, up to 7 hours with two clusters

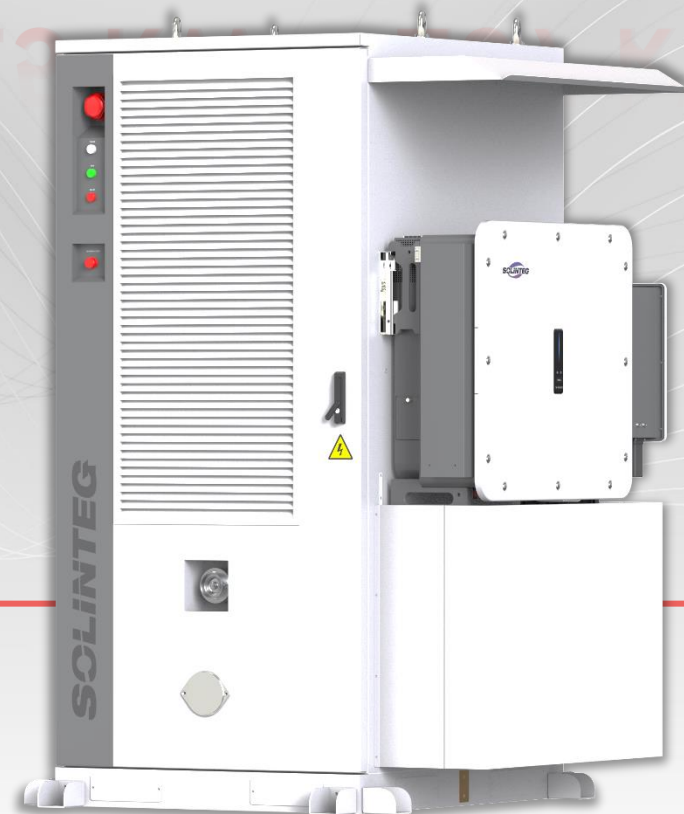
Streamlined & Efficient O&M

Dual dongle enables cell-level monitoring & cloud diagnostics

Easy Scalability: 125 kW × 8 + 257 kWh × 16

Scaling up to 1 MW / 4 MWh Energy Storage System

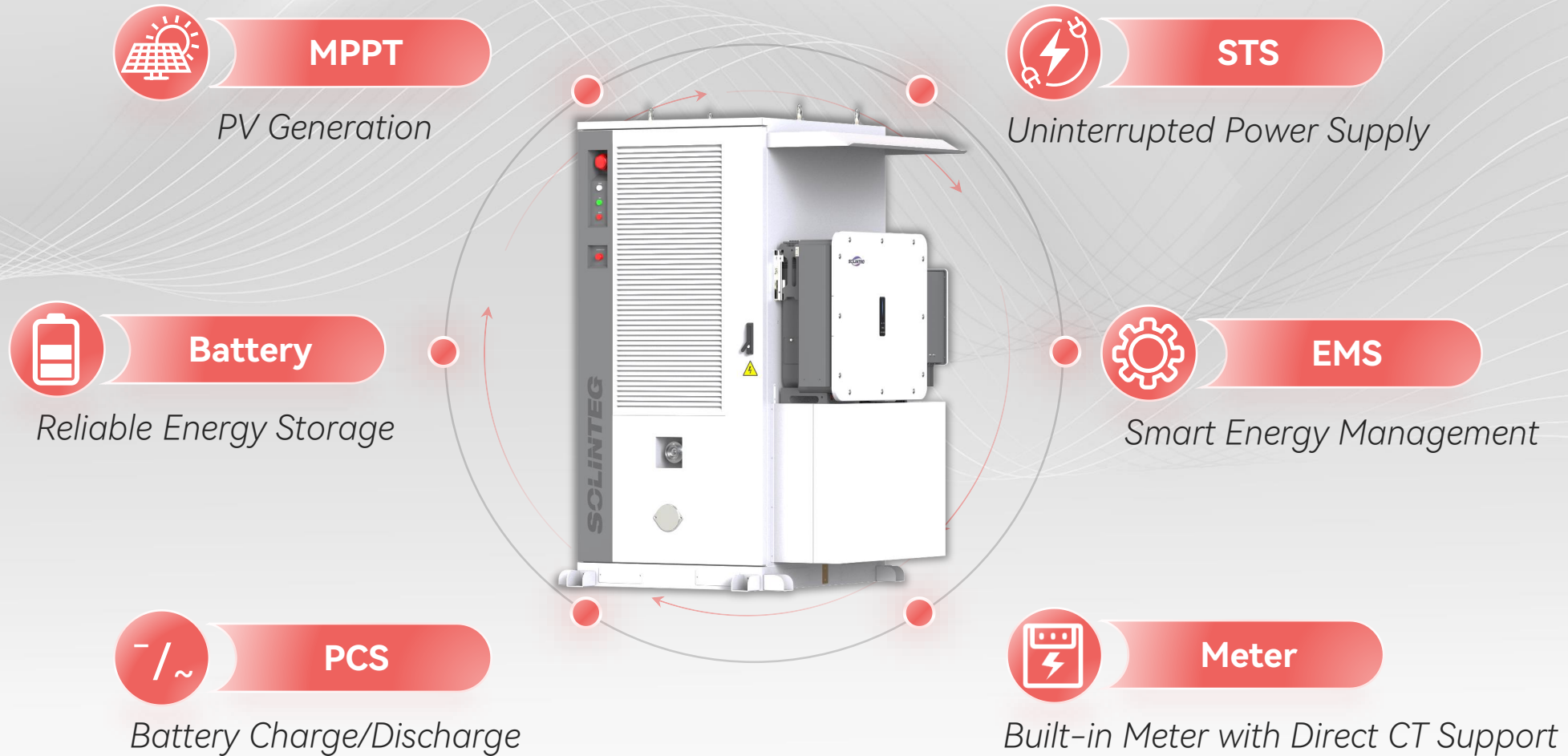
125 kW + 257 kWh



IntegOne Business
All-in-One C&I Solar-Storage System

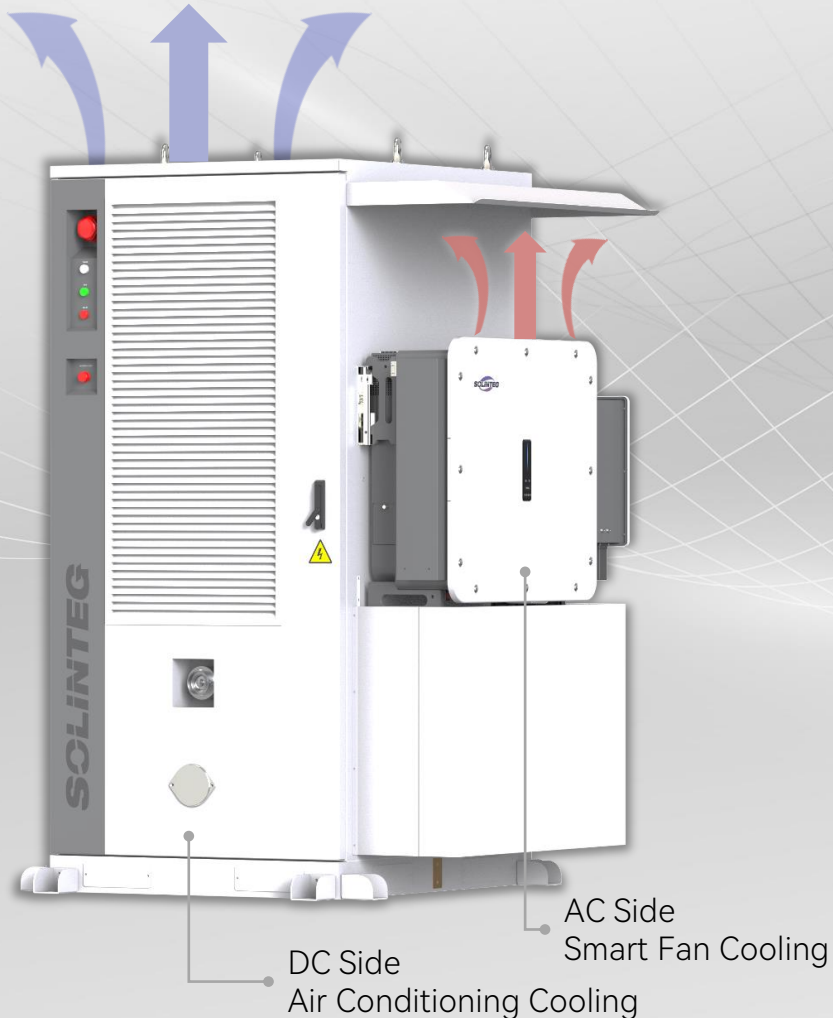
PTH-75/80/99/100/125K-S208/225/241/257kWh

6-in-1 Highly Integrated Solar-Storage System



1 Product, 6-in-1 Performance

Structural Separation, Maximum Business Value



AC/DC Thermal Isolation

Completely isolates the high-heat inverter from the temperature-sensitive battery. Guarantees optimal cell temperatures, boosting system efficiency and battery life.

Unmatched Flexibility

Flexible configuration: seamlessly combines diverse inverter power ratings with different battery capacities for tailored energy solutions.

Standard Bolt-On Rain Shelter

Shields the hybrid inverter from extreme weather, prevents thermal derating, and extends the system's lifespan.

Simplified Maintenance

Safe AC/DC decoupling. Allows O&M teams to safely service the AC side without entering high-voltage DC hazard zones.

Ultimate Safety with 5-Layer Protection



Intelligent Early Warning

Equipped with multi-sensor detection (smoke, temperature, and water immersion) coupled with an audible and visual alarm to trigger instant alerts before a hazard spreads.

Pack-Level Aerosol Fire Suppression

Deploys localized aerosol fire extinguishers directly inside each battery pack to restrain thermal runaway at its source.

Cabinet-Level Aerosol Fire Suppression

Features cabinet-level aerosol fire suppressors to effectively control and prevent the spread of fire in the cabinet.

Cabinet-Level Water Fire Suppression

Integrates a built-in fire sprinkler piping system with an external fire connection for quick water injection, ensuring rapid emergency cooling and fire suppression.

Explosion-Proof Valve & Explosion Relief Plate

Features specialized explosion-proof valves to safely release internal pressure, with an explosion relief plate (optional) available for enhanced structural protection.

Effortless Expansion to Two Battery Clusters



Native Dual-Cluster Support

Featuring dual battery ports, the inverter connects directly to two battery clusters without the external combiner box.

4~7 Hours of Maximum Backup Time

Achieve a 1:7 power-to-energy ratio, guaranteeing up to 7 hours of continuous, full-load electricity during power outages.

Dual Batteries, Dual Security

Independent dual-channel operation. If one battery cluster fails, the other continues running to ensure energy continuity.

Unmatched Off-grid Backup Runtimes

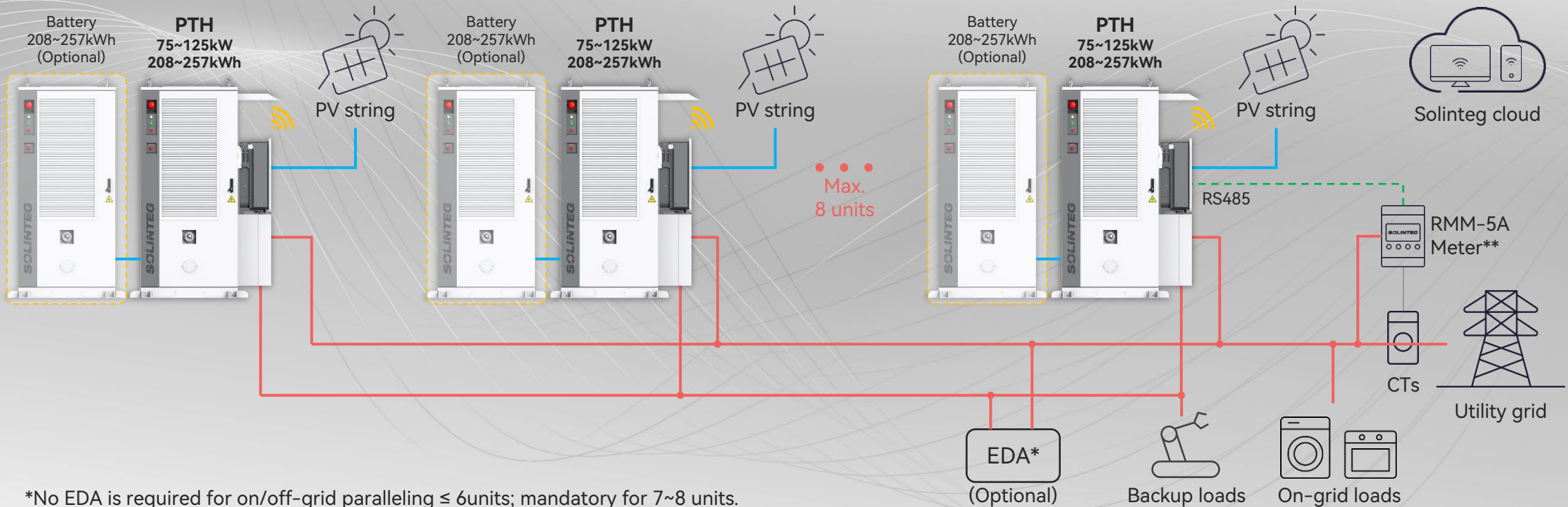
Battery Cluster Number	1 Cluster				2 Clusters			
								
Battery Capacity (kWh)	208.9	225.1	241.1	257.2	417.8 (208.9 × 2)	450.2 (225.1 × 2)	482.2 (241.1 × 2)	514.4 (257.2 × 2)
M2HT-75K-300	75kW / 2.8h	75kW / 3.0h	75kW / 3.2h	75kW / 3.4h	75kW / 5.6h	75kW / 6.0h	75kW / 6.4h	75kW / 6.9h
M2HT-80K-300	80kW / 2.6h	80kW / 2.8h	80kW / 3.0h	80kW / 3.2h	80kW / 5.2h	80kW / 5.6h	80kW / 6.0h	80kW / 6.4h
M2HT-99K-300	99kW / 2.1h	99kW / 2.3h	99kW / 2.4h	99kW / 2.6h	99kW / 4.2h	99kW / 4.5h	99kW / 4.9h	99kW / 5.2h
M2HT-100K-300	100kW / 2.1h	100kW / 2.3h	100kW / 2.4h	100kW / 2.6h	100kW / 4.2h	100kW / 4.5h	100kW / 4.8h	100kW / 5.1h
M2HT-125K-300	104kW / 2.0h	112kW / 2.0h	120kW / 2.0h	125kW / 2.1h	125kW / 3.3h	125kW / 3.6h	125kW / 3.9h	125kW / 4.1h

*Note: The table shows identical battery clusters for parallel connection. However, the inverter also supports mixing up to two battery clusters with different capacities in practice.

MW-Level Seamless On/Off Grid Parallel

1MW + 4MWh

Tailored for commercial & industrial projects



*No EDA is required for on/off-grid paralleling ≤ 6 units; mandatory for 7~8 units.

**Paralleling requires RMM-5A meter (optional, order from Solinteg). Associated CTs are user-supplied.

Max. 8 Units in Parallel

- Perfect for C&I MW-level project
- Enhanced backup power for larger industrial loads
- Suitable for on-grid/off-grid/unstable grid scenarios
- System-level energy dispatch & battery balancing

Other Leading Advantages

Powerful

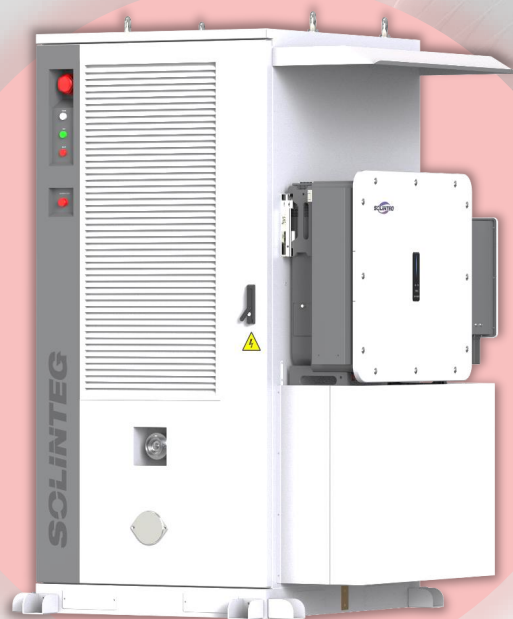
- 200% PV oversizing for max solar use
- 6 MPPTs, PV input current up to 24A
- 314Ah high-density cell with 8000 cycles
- 100% DOD to maximize usable energy
- 100% unbalanced load support
- Support diesel generator access*

Flexible

- Multiple power & battery capacity options
- Third-party EMS compatibility
- OLED screen for user-friendly local operation
- Remote upgrade for whole system saves O&M time
- DC & AC coupling for PV expansion and retrofitting
- Wide-open & horizontal AC terminals for effortless wiring

PTH Series

75 / 80 / 99 / 100 / 125 kW
208 / 225 / 241 / 257 kWh



Smart

- Cell-level battery monitoring
- ToU with 96-periods for arbitrage
- Built-in EMS with five preset modes
- AI-Powered PV generation prediction
- Intelligent strategy for dynamic pricing
- CT phase-sequence and direction detection

Reliable

- < 20ms on/off-grid switching
- 165kVA peak backup power @10s
- IP55 & IP66, robust for outdoor application
- 330A AC contactor for long-term reliability
- DC type I+II and AC type II surge protection
- AFCI (optional): extinguishes arcs at first spark

*The DG solution is currently in development.

6 MPPTs for Various Applications

Maximum Design Flexibility

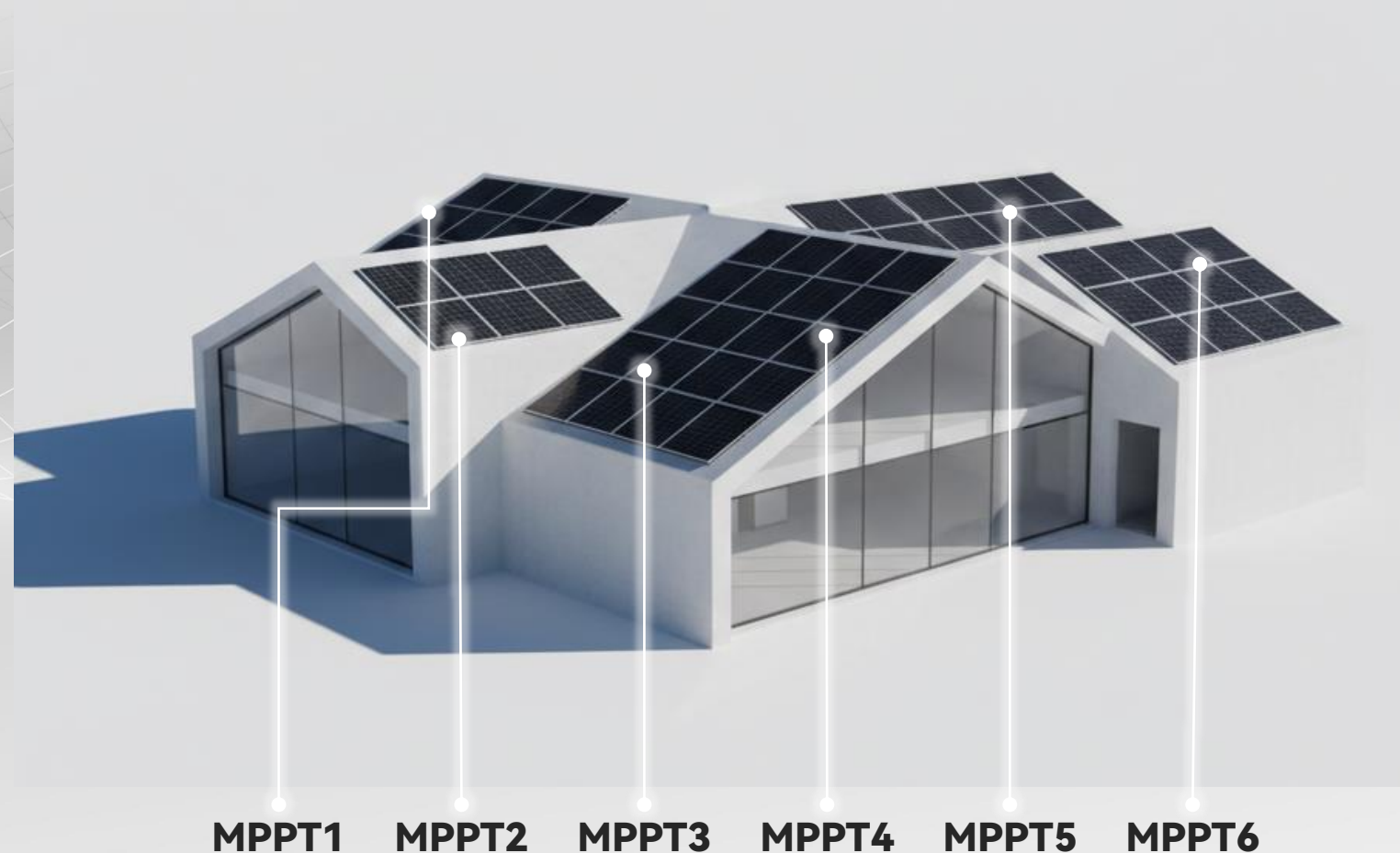
Optimized for multi-directional roofs, allowing PV modules with different orientations to be multi-channelled independently to eliminate mismatch losses.

Wide MPPT Voltage Range

The max power point can be tracked within a wide MPPT voltage range of up to 950V. It enables the inverter to be flexibly connected to PV strings.

200% PV Oversizing

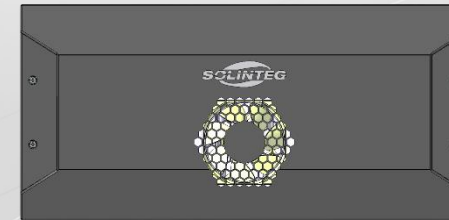
Supports 200% PV oversizing to simultaneously power loads and charge batteries, maximizing solar utilization to significantly accelerate ROI.



Premium Cells for Maximized Lifecycle Value



Battery Pack



Tier-1

314Ah Premium Cell

Powered by top-tier battery cells, guaranteeing premium safety, strict quality control, and world-class reliability.

100%

Depth of Discharge (DOD)

Full Capacity Utilization. Eliminates wasted, locked-up energy capacity, maximizing daily financial arbitrage income.

8000

Cycles Ultra-long Lifespan

Perfectly matches the project's payback timeline and avoids early replacement costs for steady, long-term returns.

165kVA @10s, Stable Heavy-Load Startup

Supports a 165kVA peak overload for 10 seconds, ensuring a stable off-grid startup for heavy inductive loads.



- ✓ *High-Power Induction Motors*
- ✓ *Automated Assembly Lines*
- ✓ *Compressors and Chillers*
- ✓ *Industrial Robotic Arms*

	PTH-75K	PTH-80K	PTH-99K	PTH-100K	PTH-125K
Off-grid Peak Power [kVA]	165 @10s	165 @10s	165 @10s	165 @10s	165 @10s
Off-grid Peak Power [%]	220% @10s	206% @10s	167% @10s	165% @10s	132% @10s

CT Phase-sequence and Direction Self-adaptation

Absolute Precision

100% accurate CT phase & direction detection

Intelligent Self-adaptation

Automatic CT phase & direction calibration

Significant Efficiency

20%-30% lower installation costs

Maintenance-free

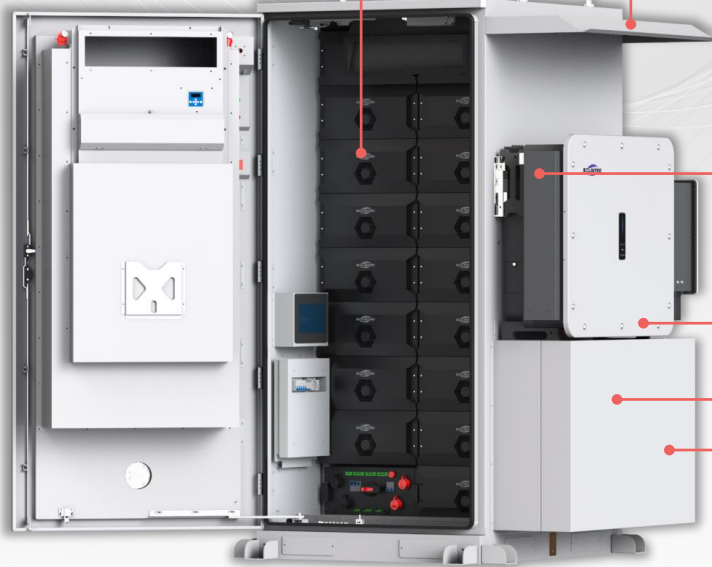
No field troubleshooting needed



High Integration, Simplified Installation

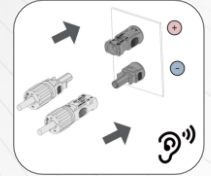
Pre-installed Battery

Fully pre-assembled inside the cabinet before leaving the factory. Upon delivery, installers only need to connect the last bottom pack's power cable.



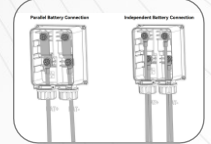
Standard MC4 for PV Input

Standard MC4 connectors ensure quick, safe, and error-free PV wiring.



Flexible Battery Terminal Box

Features a dedicated terminal box for effortless connection to single or dual battery clusters without external combiners.



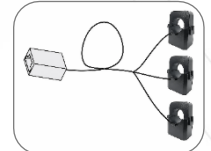
Plug-and-Play Communication

Simple USB port for smart dongles and standard RJ45 port for ultra-fast BMS connection.



Meter-Free CT Connection

Direct CT wiring with smart self-adaptation for phase and direction, require no extra meters and cutting setup steps in half.

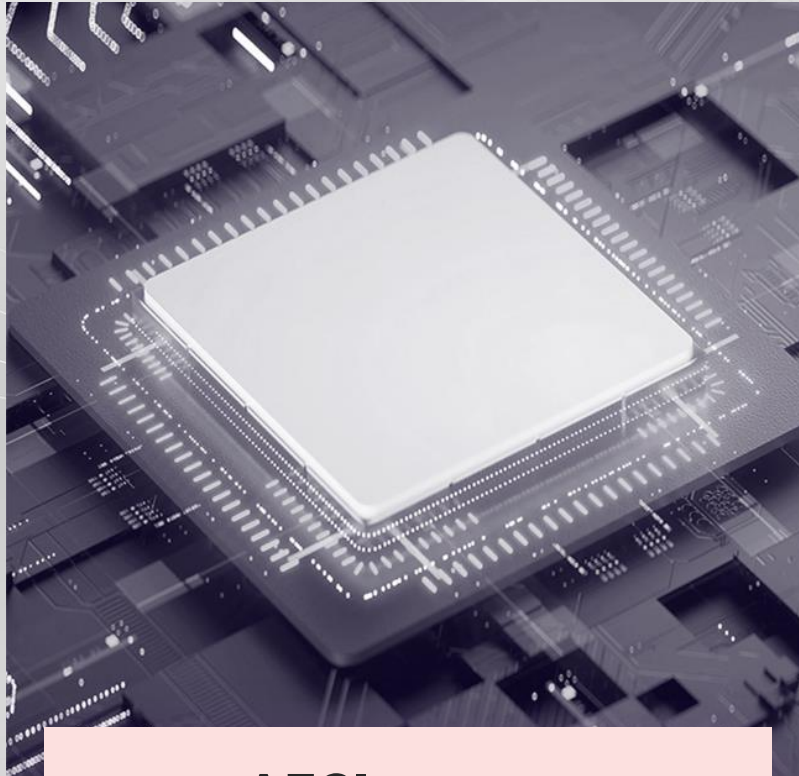


Spacious Wide-Open AC Output

Offers superior wiring space & effortless straight-in connection with less cable bending, reducing AC wiring time by up to 40%.



Superior manufacturing and design lead to high safety, reliable power, and exceptional durability.



AFCI (Optional)
DC Arc fault protection



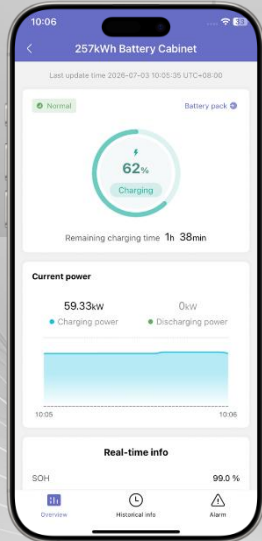
IP66 INV + IP55 BAT
Fearless of outdoor installation



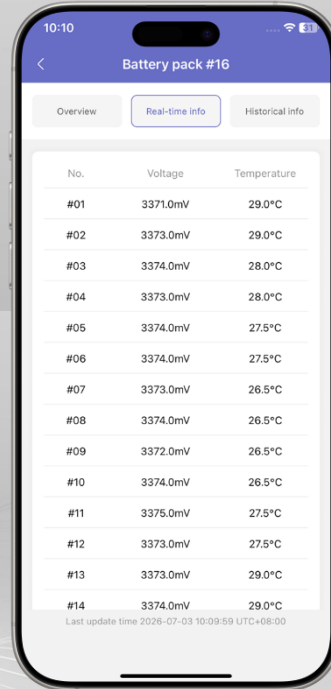
SPD PV(I+II) & AC(II)
Worry-free about bad weather

Cell-level Monitoring & OTA Upgrade

Real-time visibility



Cell monitoring



10:10

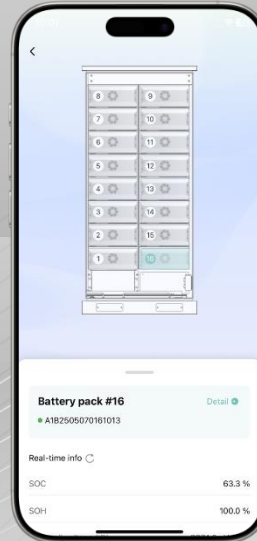
Battery pack #16

Overview Real-time info Historical info

No.	Voltage	Temperature
#01	3371.0mV	29.0°C
#02	3373.0mV	29.0°C
#03	3374.0mV	28.0°C
#04	3373.0mV	28.0°C
#05	3374.0mV	27.5°C
#06	3374.0mV	27.5°C
#07	3373.0mV	26.5°C
#08	3374.0mV	26.5°C
#09	3372.0mV	26.5°C
#10	3374.0mV	26.5°C
#11	3375.0mV	27.5°C
#12	3373.0mV	27.5°C
#13	3373.0mV	29.0°C
#14	3374.0mV	29.0°C

Last update time 2026-07-03 10:09:59 UTC+08:00

Precise manage

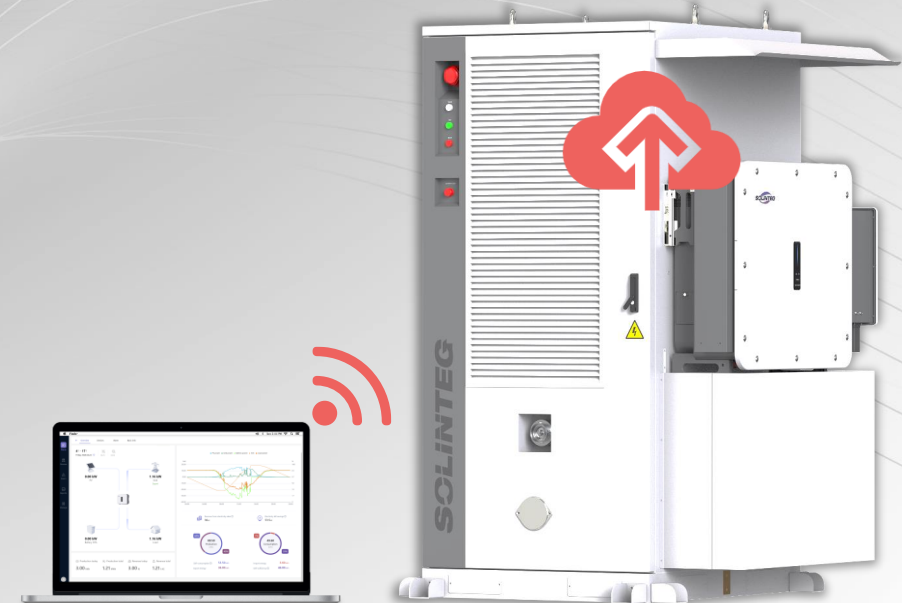


PREVENTION

TRANSPARENCY

LONGEVITY

Remote upgrade



FUTURE-PROOF

REMOTE SERVICE

All-scenario Peak Shaving

- Bill optimization by reducing the peak shaving value
- All-mode integration seamlessly
- Customizable intervals with independent peak power

Peak shaving power:

100kW -> 50kW

Saves:  Per month

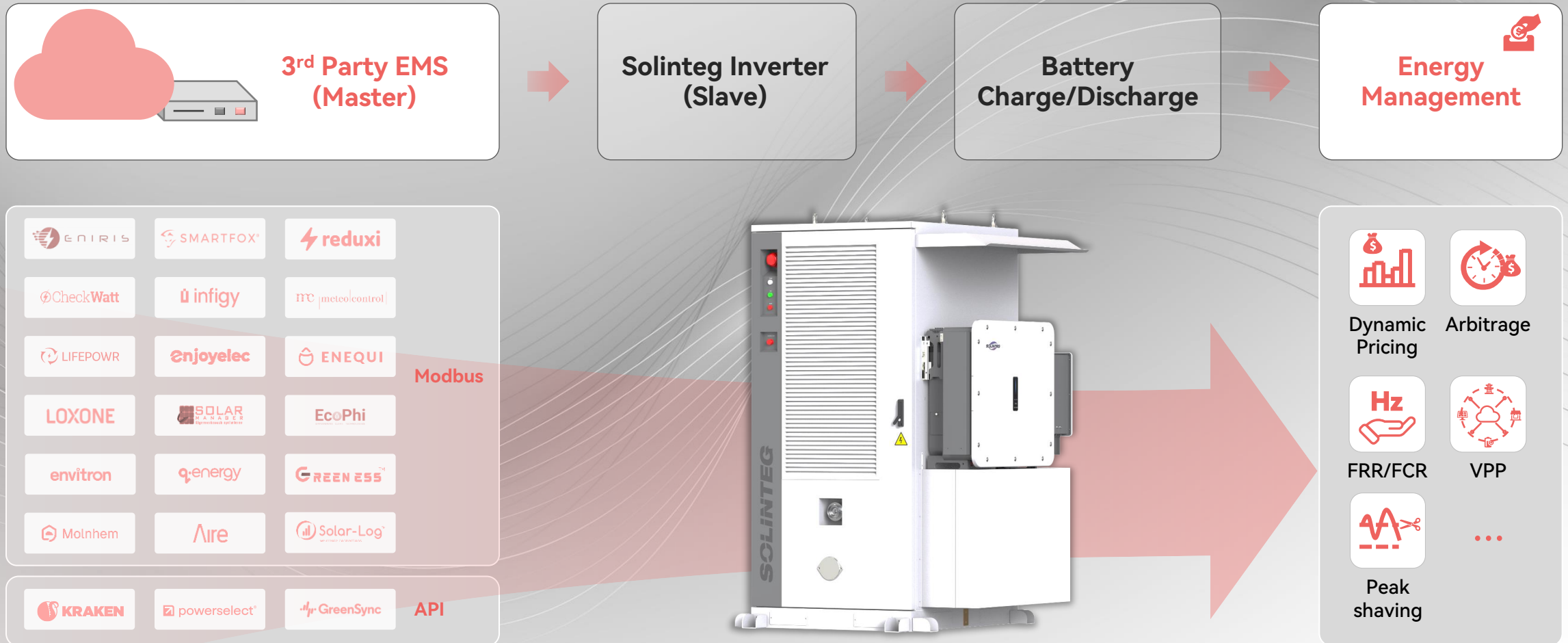
523.6€

Sample Charge Summary for Europe

Charge Description	Amount	Rate	Cost Before	Cost Now
Usage	10000kWh	0.3€/kWh	3000€	3000€
Monthly Fee	1month	20€/month	20€	20€
Peak Capacity Charges	100kW	8€/kW	800€	400€
Environmental Levy		10%	382€	342€
VAT		19%	798.38€	714.78€
Total			5000.38€	4476.78€



Open Connectivity, Empower Energy Strategy

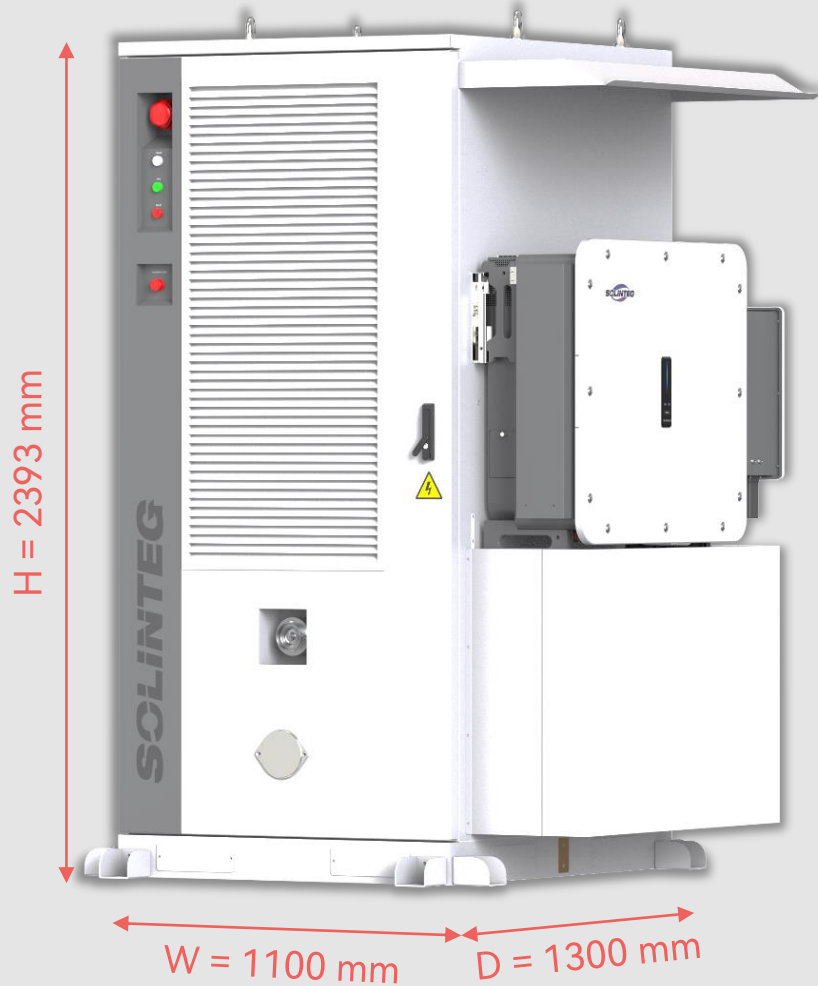


02

Appearance

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Dimension & Weight



Battery Weight

208.9kWh $\approx$ 2170KG

225.1kWh $\approx$ 2280KG

241.1kWh $\approx$ 2390KG

257.2kWh $\approx$ 2500KG

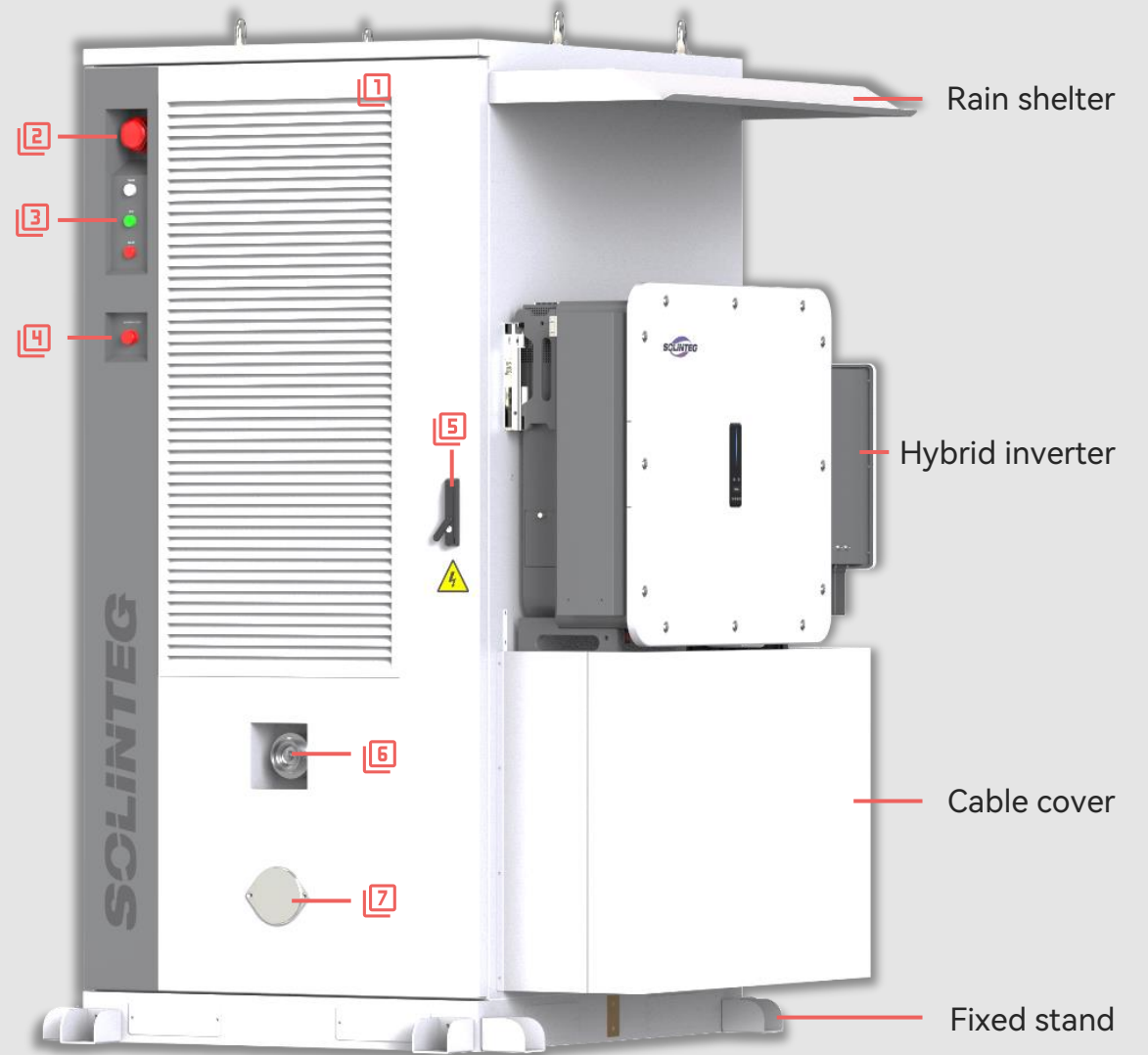
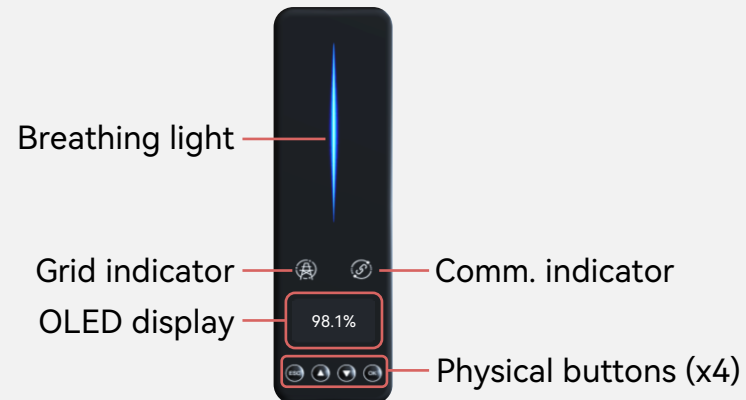


Inverter Weight

75~125kW: 164KG

Appearance

- [1]** Cooling system air outlet
- [2]** Audible & visual alarm indicator
- [3]** Status indicators (Power/Run/Fault)
- [4]** Emergency stop button
- [5]** Door lock
- [6]** Firefighting water inlet
- [7]** Explosion-proof valve



Appearance with Door Open

Lifting ring

Fire extinguish system

Fire sprinkler head

Air intake

Air-cooling air conditioner

Battery packs

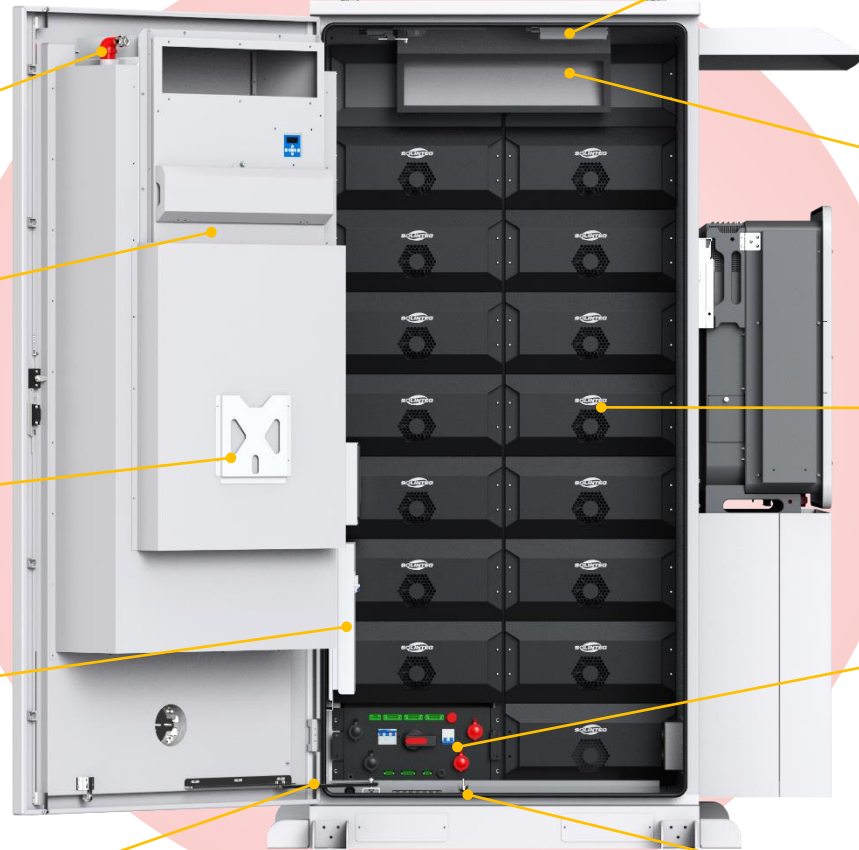
Documentation frame

High-voltage box

Power circuit

Immersion sensor

Windproof fixing bar



5-Level Fire Safety Protection



Early Warning & Prevention

Level 1: Smoke, temperature & water-immersion detection

Active & Passive Suppression

Level 2: Pack-level aerosol

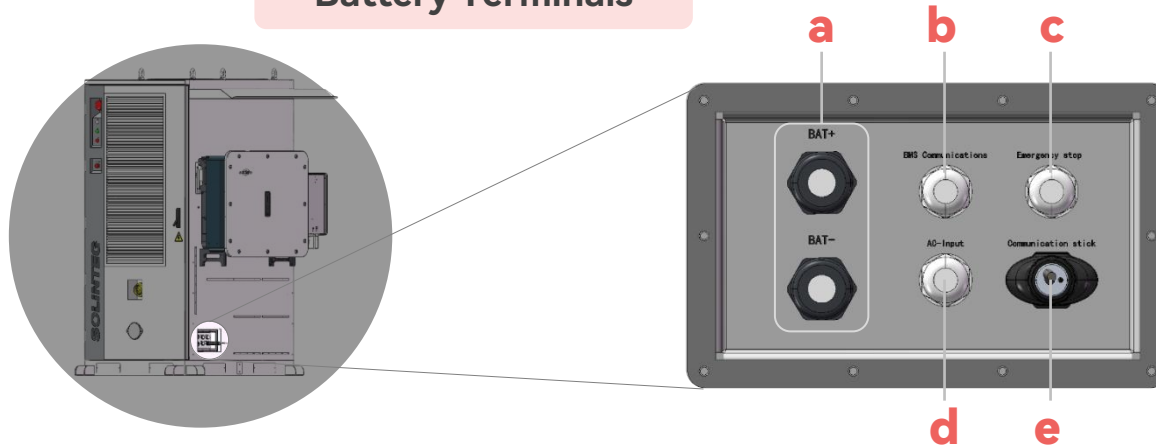
Level 3: Cabinet-level aerosol

Level 4: Cabinet-level water fire protection

Level 5: Explosion-proof valves & explosion relief plate (optional)

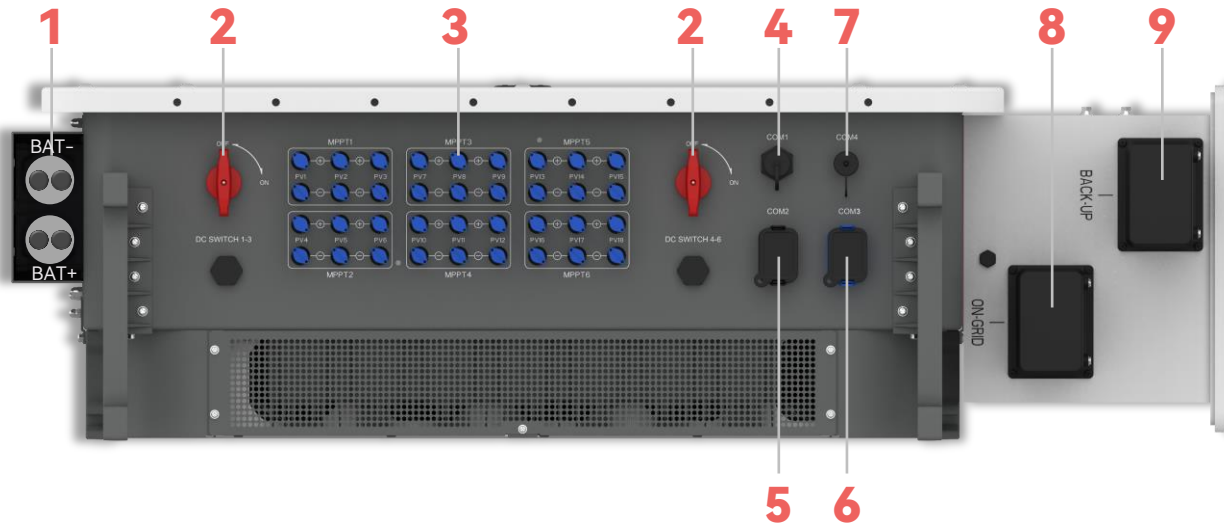
Terminals

Battery Terminals



No.	Definition
a	Battery Power Cable Entry
b	Battery Comms Cable Entry
c	E-Stop Comms Cable Entry
d	AC Cable Entry
e	Dongle Port for R2MD-EXANT

Inverter Terminals



No.	Definition
1	Battery Terminals (2 Groups)
2	DC Switches
3	PV Terminals
4	COM1 Port for R2MD Dongle
5	COM2 Port (Multi-function)
6	COM3 Port (Multi-function)
7	COM4 Port for EMS
8	AC Output Port (On-grid Side)
9	AC Output Port (Back-up Side)

Battery Cabinet Parameters

Model	E2BR-S208K-C	E2BR-S225K-C	E2BR-S241K-C	E2BR-S257K-C
System Data				
Cell Type	LiFePO ₄ / 314Ah			
System Energy [kWh]	208.9	225.1	241.1	257.2
Battery Module Quantity	13 Packs	14 Packs	15 Packs	16 Packs
Depth of Discharge	100% (95% recommended)			
Rated Charge/Discharge Power	0.5P			
General Data				
Ingress Protection	IP55			
Anti-corrosion Grade	C4 (C5 Optional)			
Cooling	Air Conditioner			
Installation Type	Floor-Mounted / Outdoor			
Operating Temperature Range [°C]	-20~50			
Cycle Life	8000			
Fire Suppression System	1. Audible & visual alarm indicator, 2. Pack-level aerosol, 3. Cabinet-level aerosol, 4. Cabinet-level water-based fire protection, 5. Explosion-proof valves & Explosion Relief Plate (Optional)			

Large-capacity battery cell of **314Ah**, high energy density

100% DOD to maximize usable energy and accelerate ROI

Air conditioning with cooling and heating function

Up to **C5 Anti-corrosion** grade, **IP55** Ingress protection

5 levels of fire safety protection

Inverter Parameters – DC Side

Model	M2HT-75K-300	M2HT-80K-300	M2HT-99K-300	M2HT-100K-300	M2HT-125K-300
PV Input					
Max. PV Array Power [kWp]	150	160	200	200	250
Start-up Voltage [V]	180				
Max. DC Input Voltage [V]	1000				
Rated DC Input Voltage [V]	620				
Operating Voltage Range [V]	160-950				
No. of MPP trackers (No. of PV Strings)	6 (3+3+3+3+3+3)				
Max. DC Input Current [A]	6 × 48				
Max. Short Circuit Current [A]	6 × 60				
Battery Side					
Battery Type	Lithium-ion				
Battery Voltage Range [V]	300-950				
Max. Charge/Discharge Current [A]	300 or 150+150 (2 groups of battery input)				
Max. Charge/Discharge Power [kW]	75/75	80/80	100/100	100/100	125/125

Up to

200%

PV Oversizing

160-950V

Operating Voltage

48A

per MPPT

2

Battery Inputs

300-950V

Battery Voltage

Max.

300A

Charge/Discharge Current

Inverter Parameters – AC Side

Model	M2HT-75K-300	M2HT-80K-300	M2HT-99K-300	M2HT-100K-300	M2HT-125K-300
Grid Side					
Rated Output Power [kW]	75	80	99	100	125
Max. Input Apparent Power [kVA]	150	160	198	200	207
Rated AC Voltage [V]	3L/N/PE, 220/380V; 230/400V; 240/415V				
Rated AC Frequency [Hz]	50/60				
Power Factor	0.8 leading ...0.8 lagging				
Back-up Side					
Rated Output Power [kW]	75	80	99	100	125
Peak Output Apparent Power [kVA]	165 @10s	165 @10s	165 @10s	165 @10s	165 @10s
On/Off-grid Switching Time	<20ms				
Rated AC Voltage [V]	3L/N/PE, 220/380V; 230/400V; 240/415V				
General Data					
Ingress Protection & Anti-corrosion	IP66 & C4				
Operating Temperature Range [°C]	-30~60				
Cooling	Smart Fan				

Max. grid side AC **input power up to 200%**

Up to **165kVA @10s** peak AC output power on the back-up side

On/Off-grid switching within **20ms**

Support **generator connection** for 100% input power

03

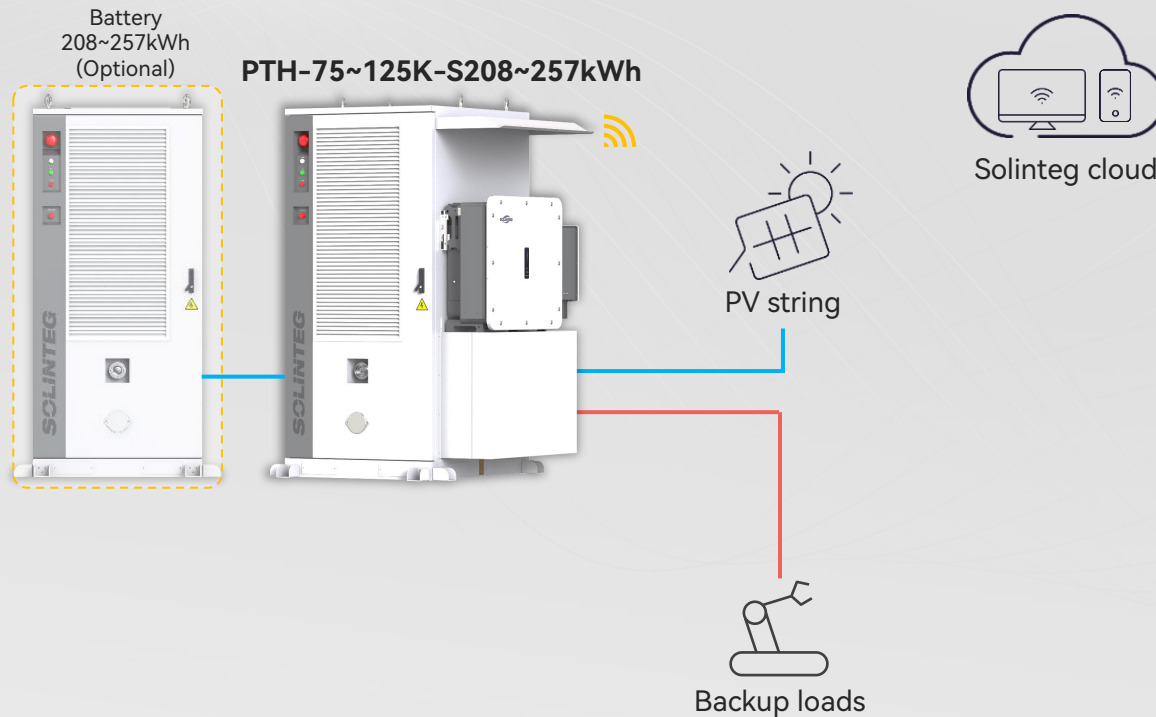
System Solutions

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* 14a EnWG function is under development.

Versatile Application Scenarios

2 IntegOne PV + ESS Off-grid Solutions



System Scalability

- **Flexible Matching:** 75~125 kW + 208~257 kWh
- **Suitable for unstable grid scenarios:** Islands, deserts, coastal areas, remote mountainous regions, and mining camps.

Smart Energy Management

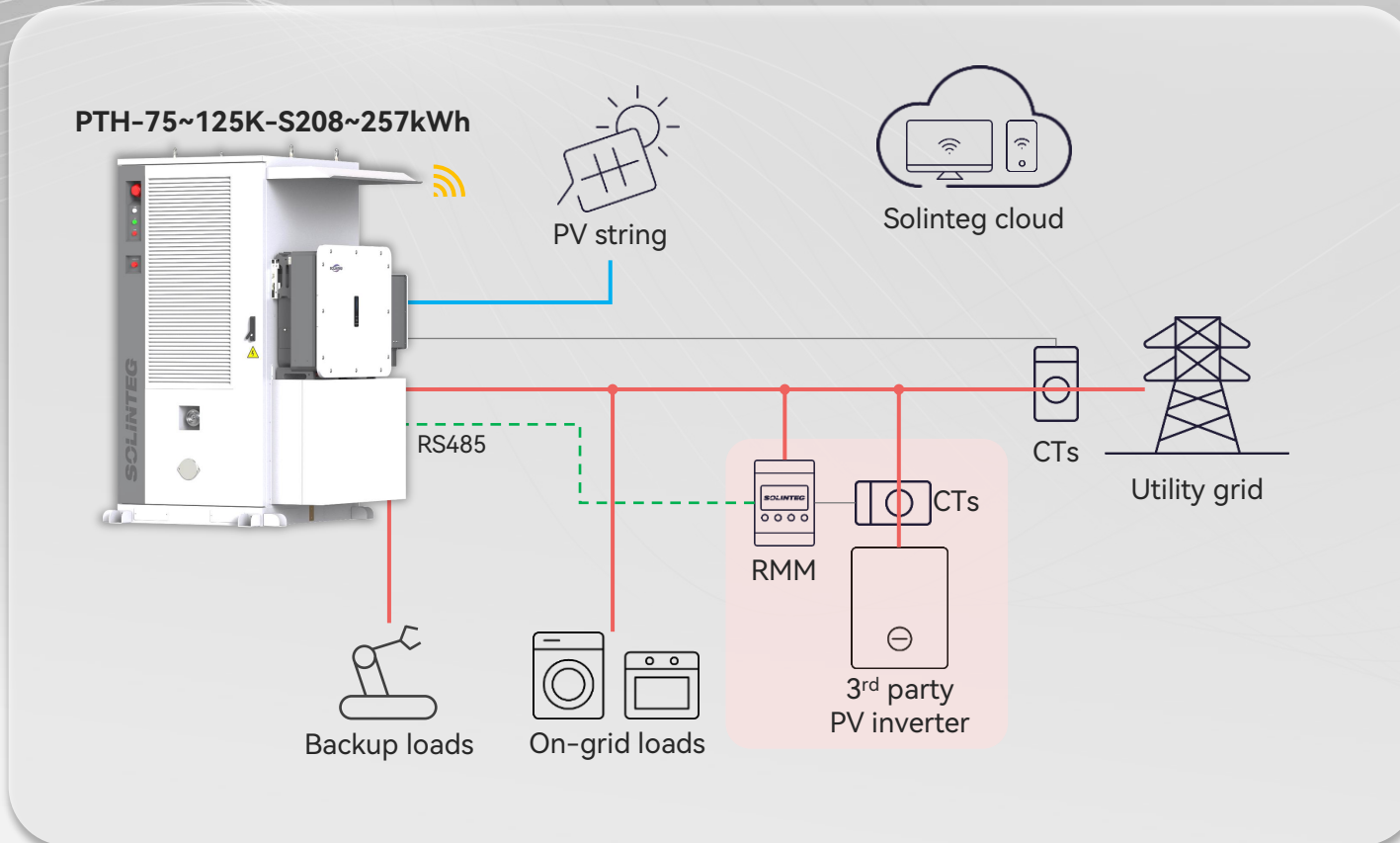
- **Optimized Solar Self-Consumption:** PV power prioritizes supplying backup loads, with surplus energy charging the battery.
- **Seamless Power Backup:** When PV generation is insufficient, the battery discharges to ensure an uninterrupted power supply for loads.

Complete Power Independence

- **100% Energy Self-Sufficiency**
- **2 to 7 hours of back-up time when off-grid**
- **Black Start & Generator Support**

Versatile Application Scenarios

3 IntegOne ESS AC Coupled Solutions



Note: Inverter firmware requirement: ARM $\geq$ V08(20)

System Retrofit

- **Seamless Upgrade:** Easily upgrade existing PV systems to solar-storage systems
- **Zero PV Rewiring:** Requires only adding an RMM meter for full-system monitoring and control

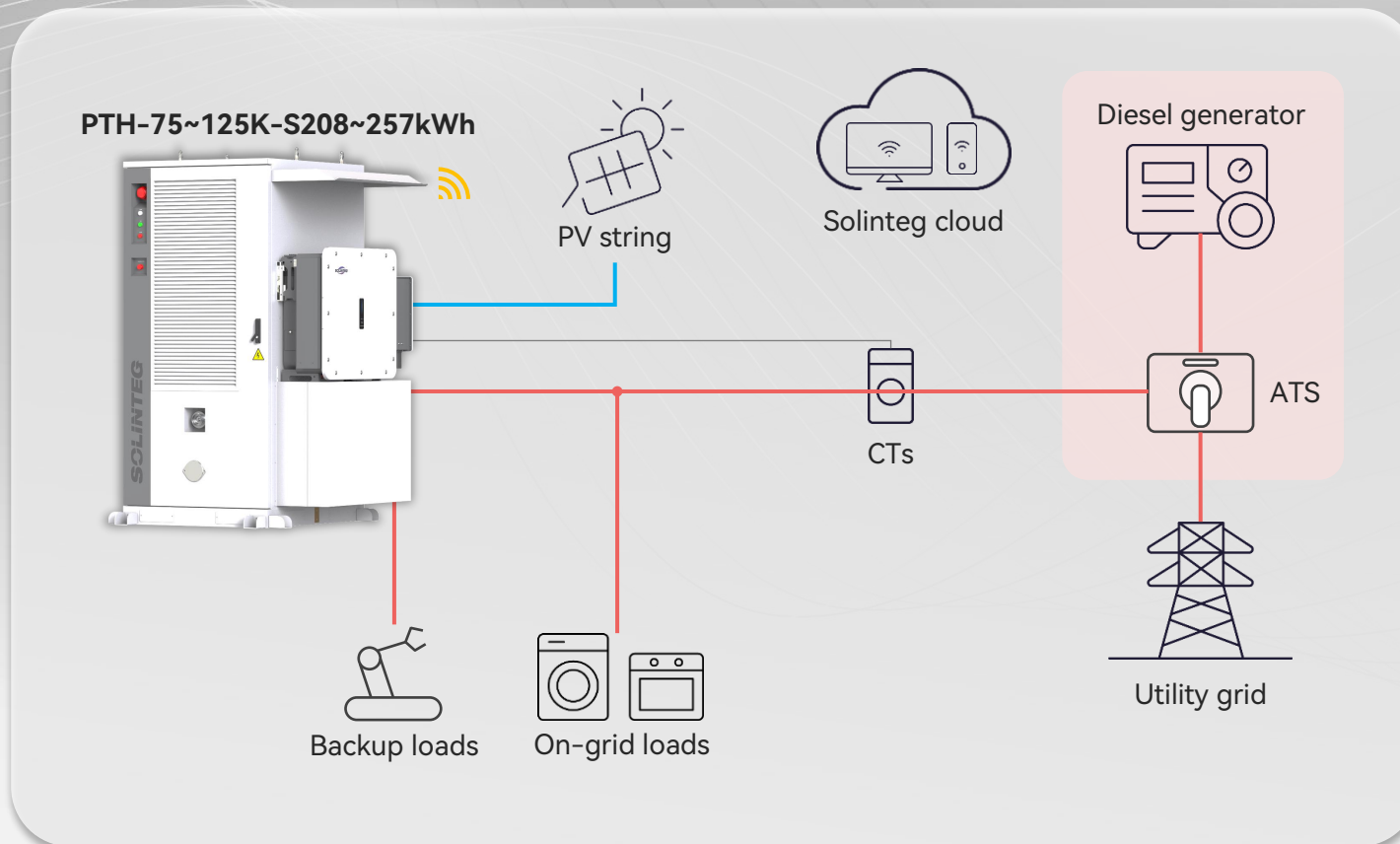
Smart Energy Management

- **Flexible Optimization:** Supports various working modes & dynamic pricing
- **High-Accuracy Data:** Simultaneous grid & 3rd-party PV inverter sampling achieves perfect timestamp alignment to eliminate data mismatch
- **Export Limitation Notice:** System-level export limitation is unavailable in this configuration

Versatile Application Scenarios

4

IntegOne PV+ESS+DG Solutions*



DG Integration with DG

- **Dual-Purpose Power:** Supports powering loads and charging batteries simultaneously to maximize generator efficiency

Smart & Resilient Control

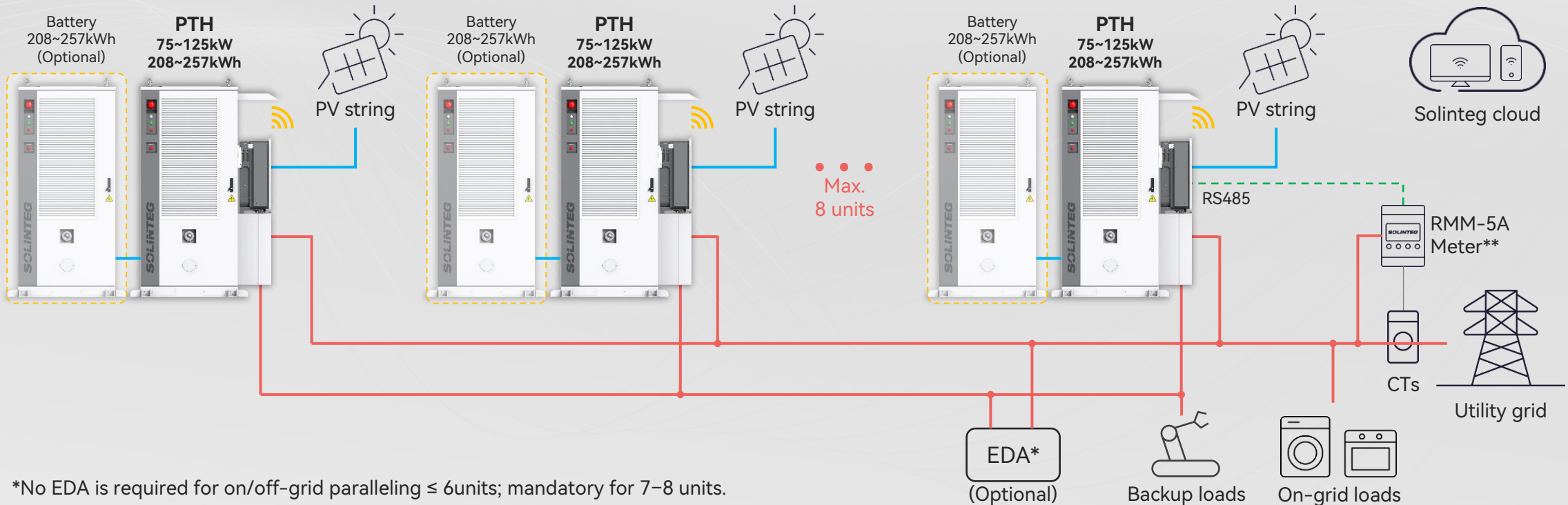
- **Intelligent Scheduling:** Support auto-starts/stops via grid status or battery SOC
- **Zero-Export to DG:** Features reverse power prevention to shield the generator from damage

*The DG solution is currently in development.

Versatile Application Scenarios

5 Up to 8 Units On/Off-Grid Parallel System

1 MW + 4 MWh



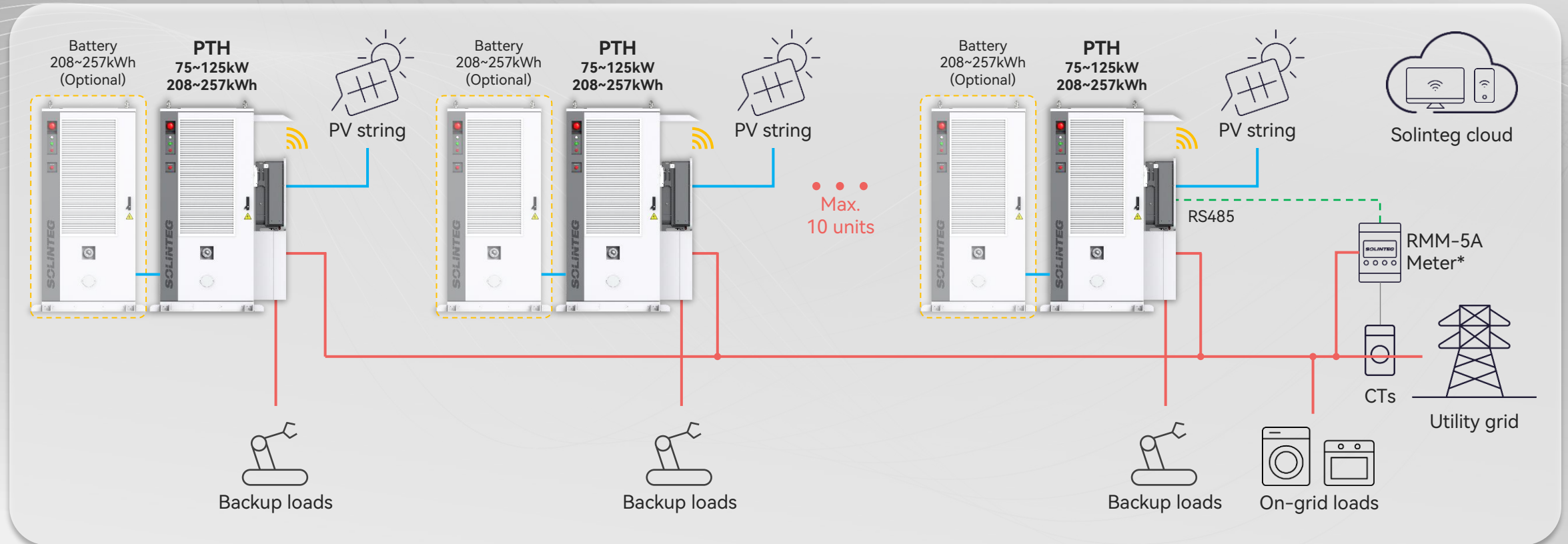
Benefits

- Perfect for **C&I MW-level project**
- Enhanced backup power for **larger industrial loads**
- Suitable for **on-grid/off-grid/unstable grid scenarios**
- System-level **energy dispatch & battery balancing**

Versatile Application Scenarios

6 Up to 10 Units On-Grid Parallel System

1.25 MW + 5 MWh



Benefits

- Perfect for **C&I MW-level business project**
- Suitable for **stable grid scenarios**

*Paralleling requires RMM-5A meter (optional, order from Solinteg). Associated CTs are user-supplied.

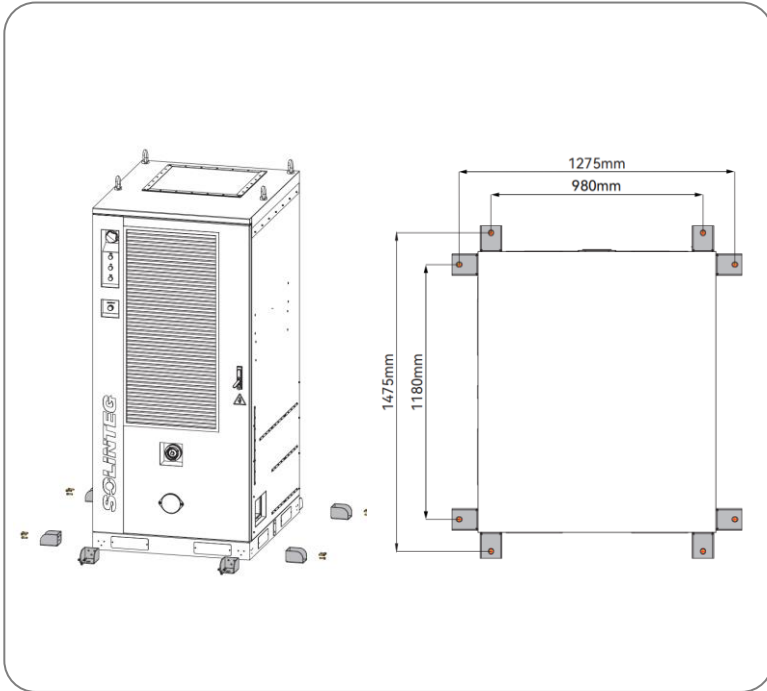
04

Commissioning

SOLINTEG

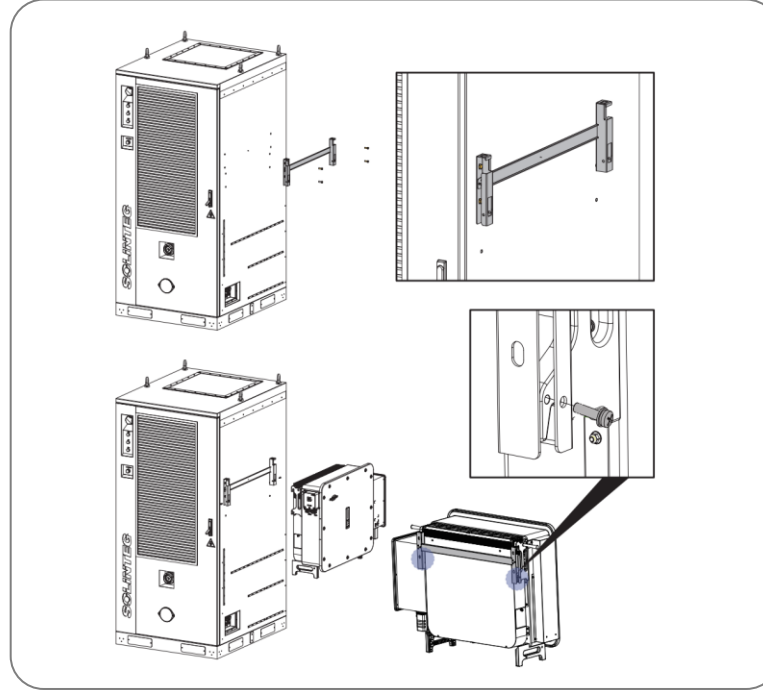
Mechanical Installation

① Cabinet Installation



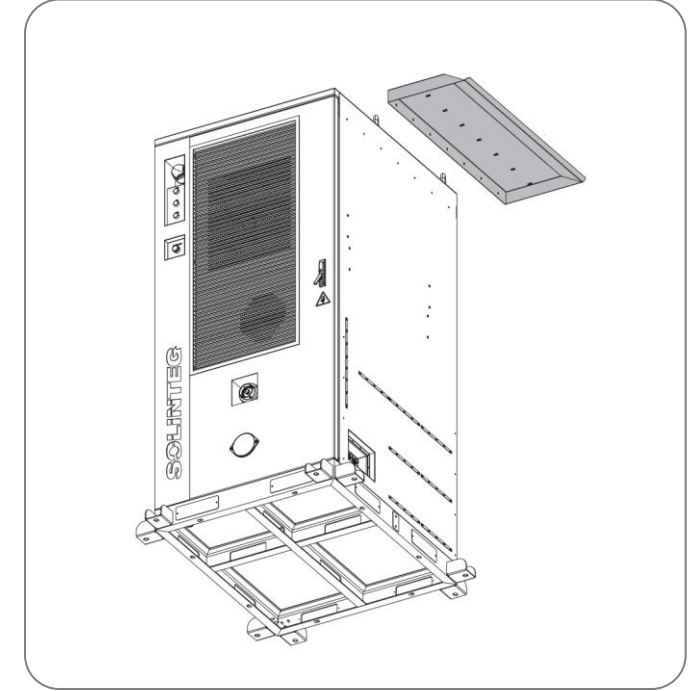
- Mark the holes** according to the site conditions and the hole position diagram.
- Drill $\phi 25 \times 150$ mm holes**; vacuum them clean.
- Secure 8 mounting feet with M8*25 screws (24pcs)**
- Insert the M20*150 expansion bolts (8pcs)** with a rubber hammer and loosely fix the stand.

② Inverter Installation



- Fix the inverter mounting bracket** on the right side of the cabinet using 4pcs M10*25 screws from the accessories package.
- Use professional tools to **lift the inverter** and **hang the back rail of the inverter on the back hanging bracket**;
- Tighten the **M6 screws** on both sides to **secure the inverter**.

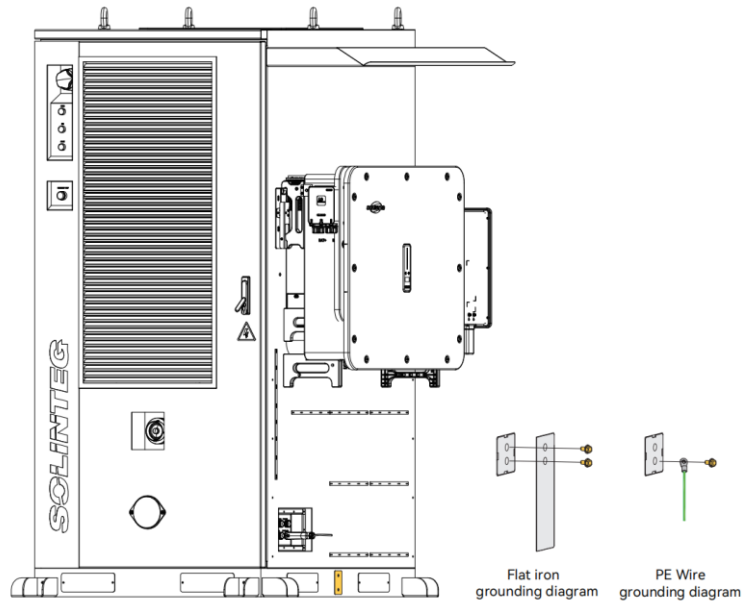
③ Rain Shelter Installation



- Pass the M5*16 mounting bolts through the waterproof washers.**
- According to the position shown in the diagram, **use M5*16 mounting bolts to fix the rain shelter** to the upper right side of the cabinet.

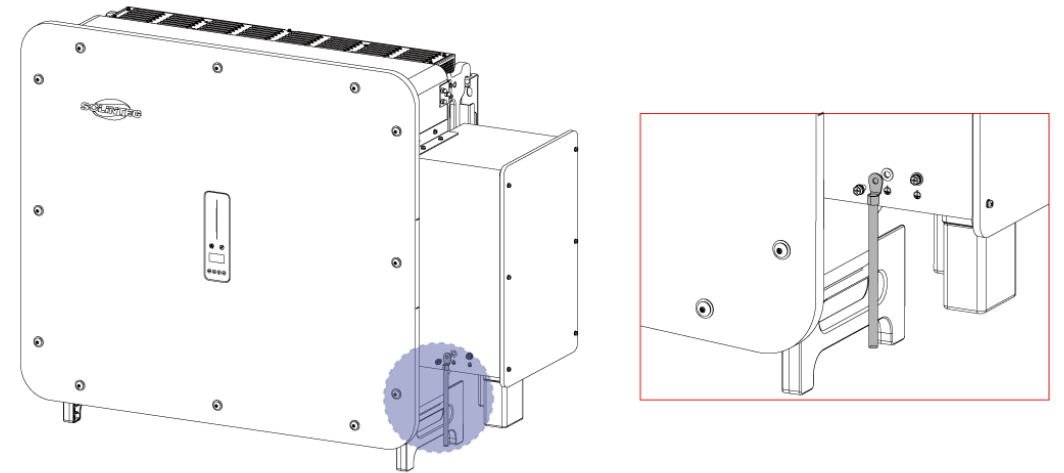
Grounding

① Cabinet Grounding



- a. **Grounding Connection:** Secure the right grounding port to the grounding copper bus bar using two M8*25 hex bolts and a 40*4 galvanized flat bar (or 70mm² PE wire), per the diagram.
- b. **Anti-Corrosion:** Paint the cut edges of the flat bar to prevent corrosion.

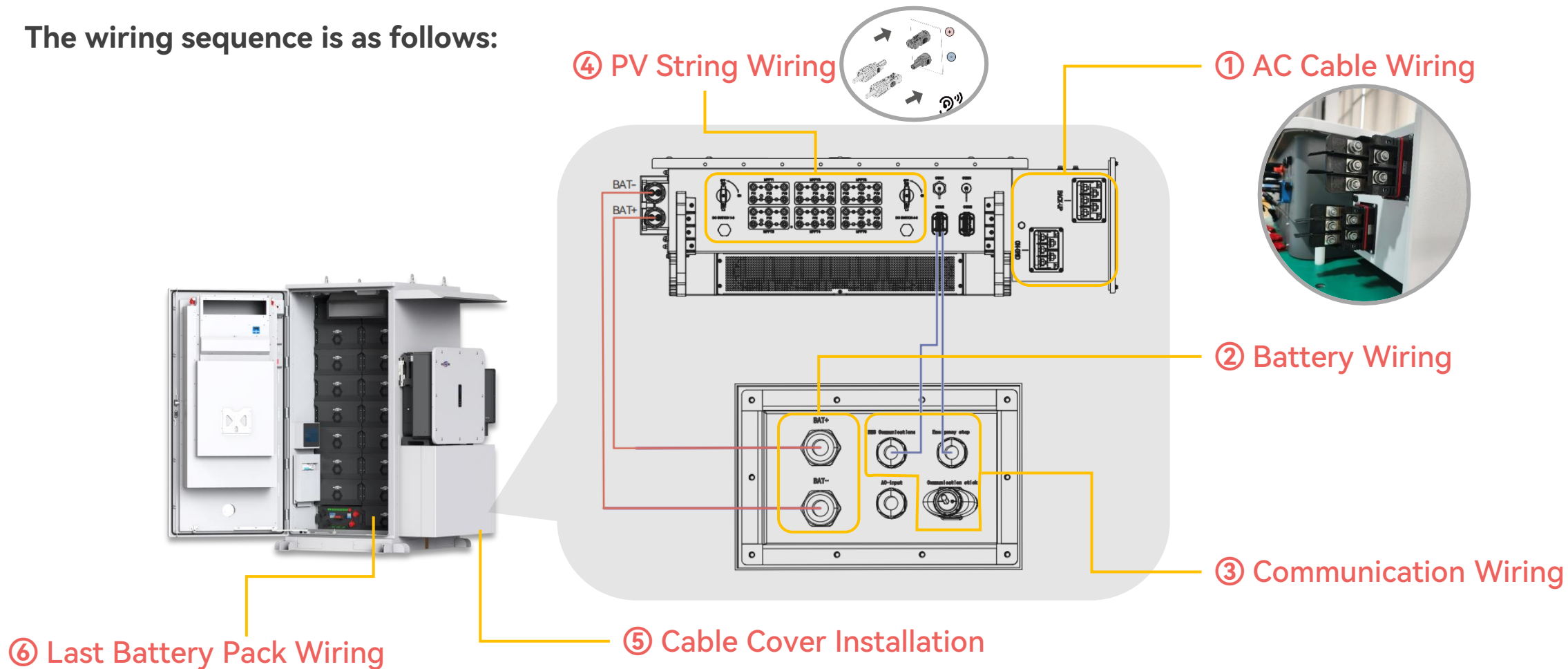
② Inverter Grounding



- a. **Location:** The external grounding terminal is at the lower right of the inverter.
- b. **Step 1:** Crimp the PE conductor into the OT terminal and secure it to the grounding bolt (torque: $1.5 \pm 0.15 \text{ N} \cdot \text{m}$).
- c. **Step 2:** Connect the other end of the PE conductor to the grounding copper busbar.

Electrical Installation

The wiring sequence is as follows:

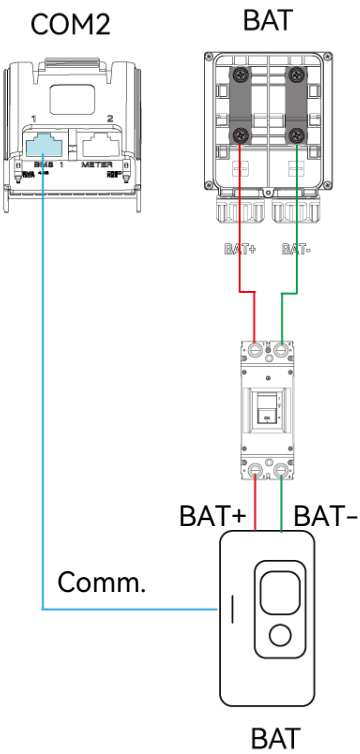


Note: For transportation safety, all pre-wiring is completed factory-side except for the last battery pack. Only the last pack requires on-site wiring.

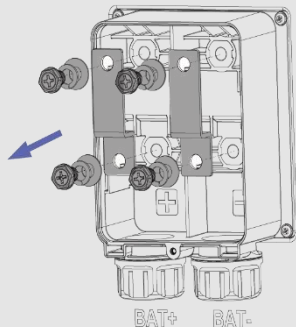
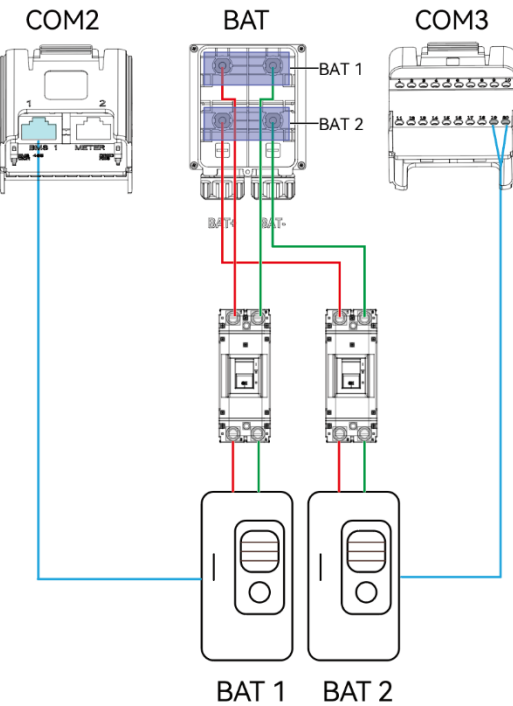
Electrical Installation

Battery Wiring:

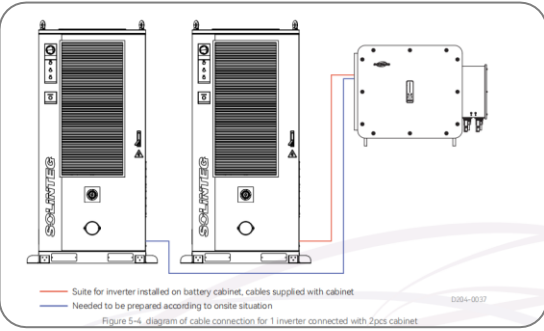
Single-Cluster Parallel Connection



Dual-Cluster Independent Connection

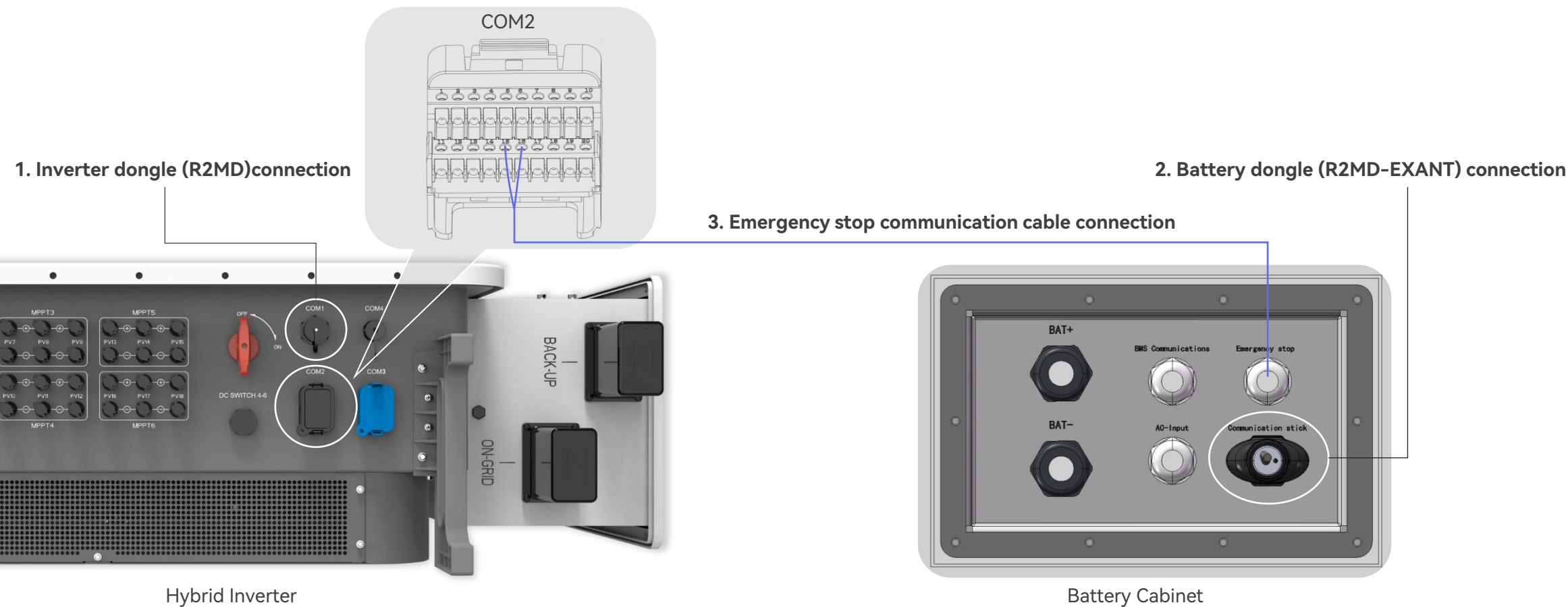


Note: For independent dual-battery connections, remove the parallel copper busbars.



Electrical Installation

Communication Wiring:

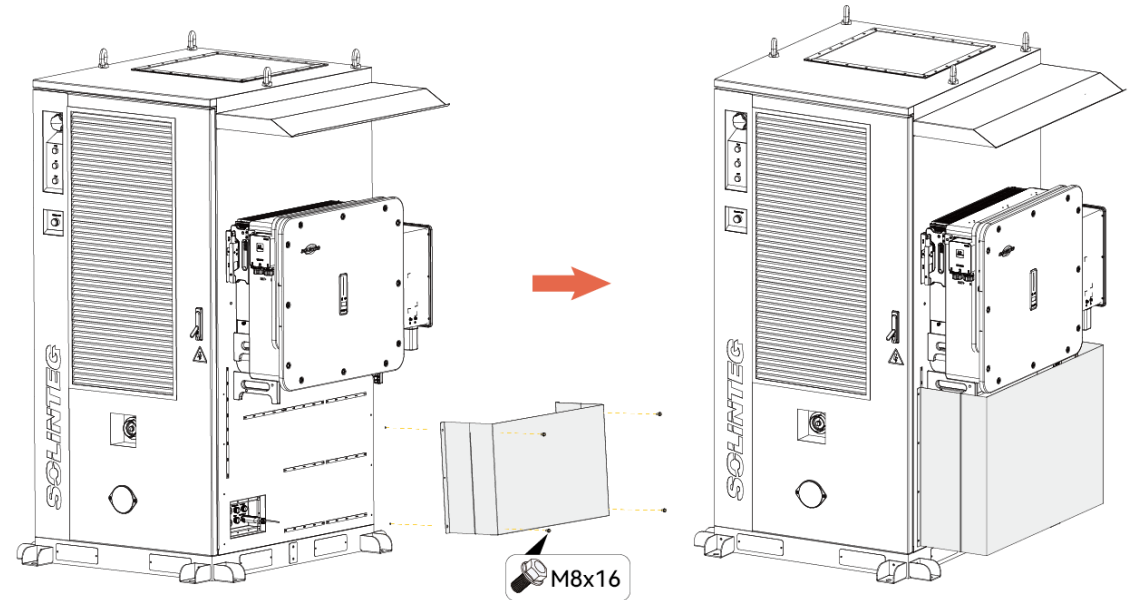
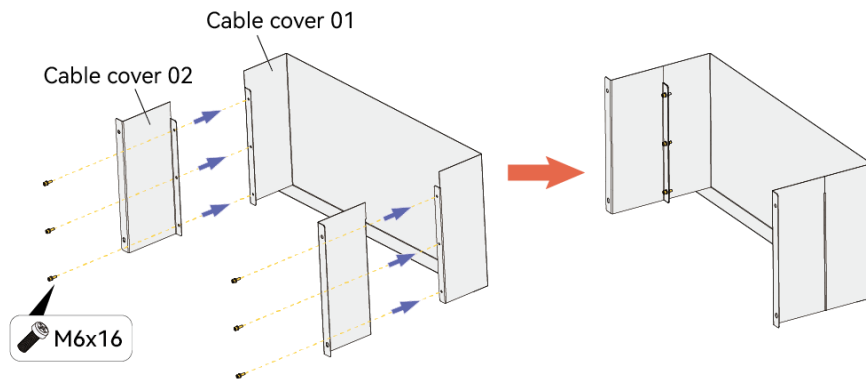


Electrical Installation

Cable Cover Installation:

Recommendation: Install the cable cover after all cables are connected and commissioned on site.

1. Secure the cables to the harness cards using cable ties.
2. Assemble the cable cover with side baffles (01 & 02) using six M6*16 hexagon socket bolts, as shown below.
3. Fix the cable cover to the right side of the cabinet using four M8*16 hexagon socket bolts.

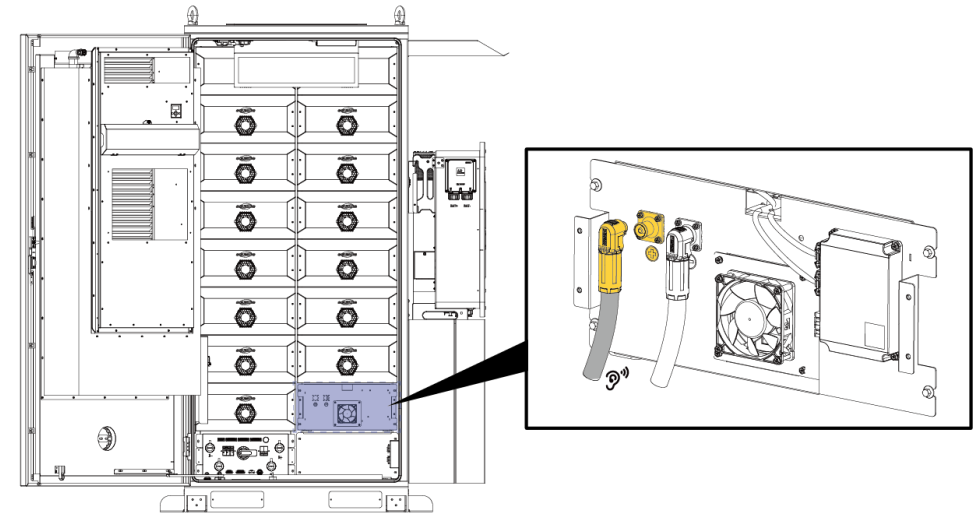
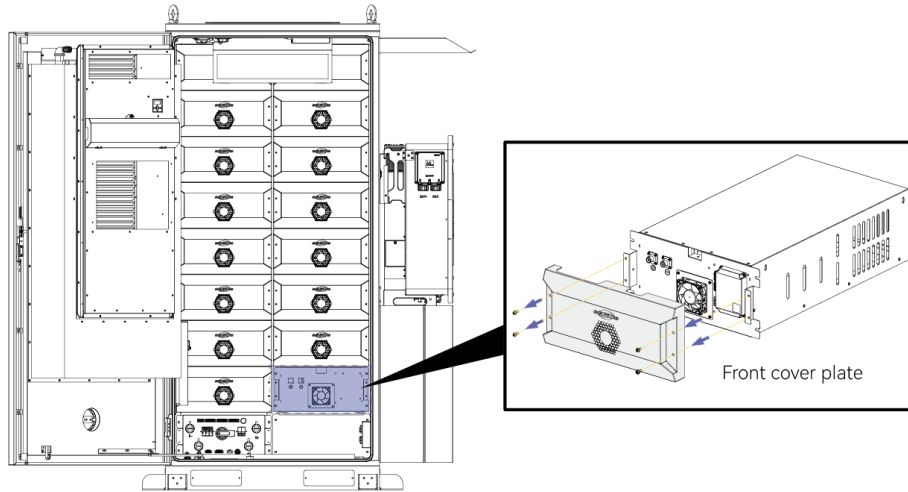


Electrical Installation

Last Battery Pack Wiring:

NOTE: Ensure correct cable polarity (+/-) before connection.

1. Open the cabinet door and remove the lower-right battery cover.
2. Disconnect the protective sleeves from the cable ends.
3. Fully insert the main (+) and (-) connectors into the terminals in sequence until they "click" into place.
4. Reinstall the battery cover.

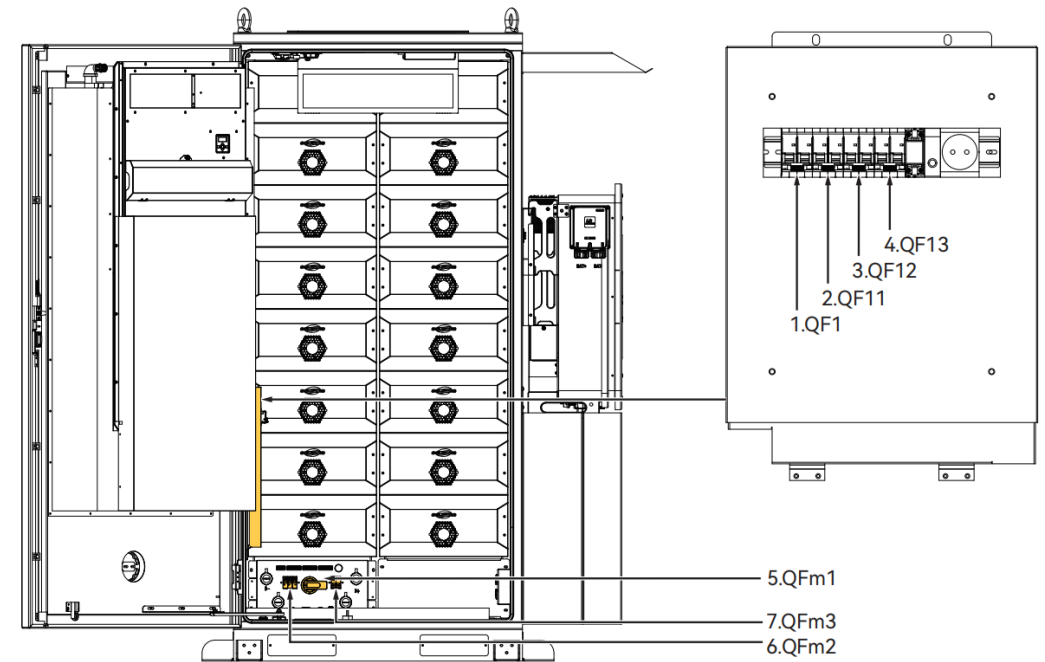


Start-Up

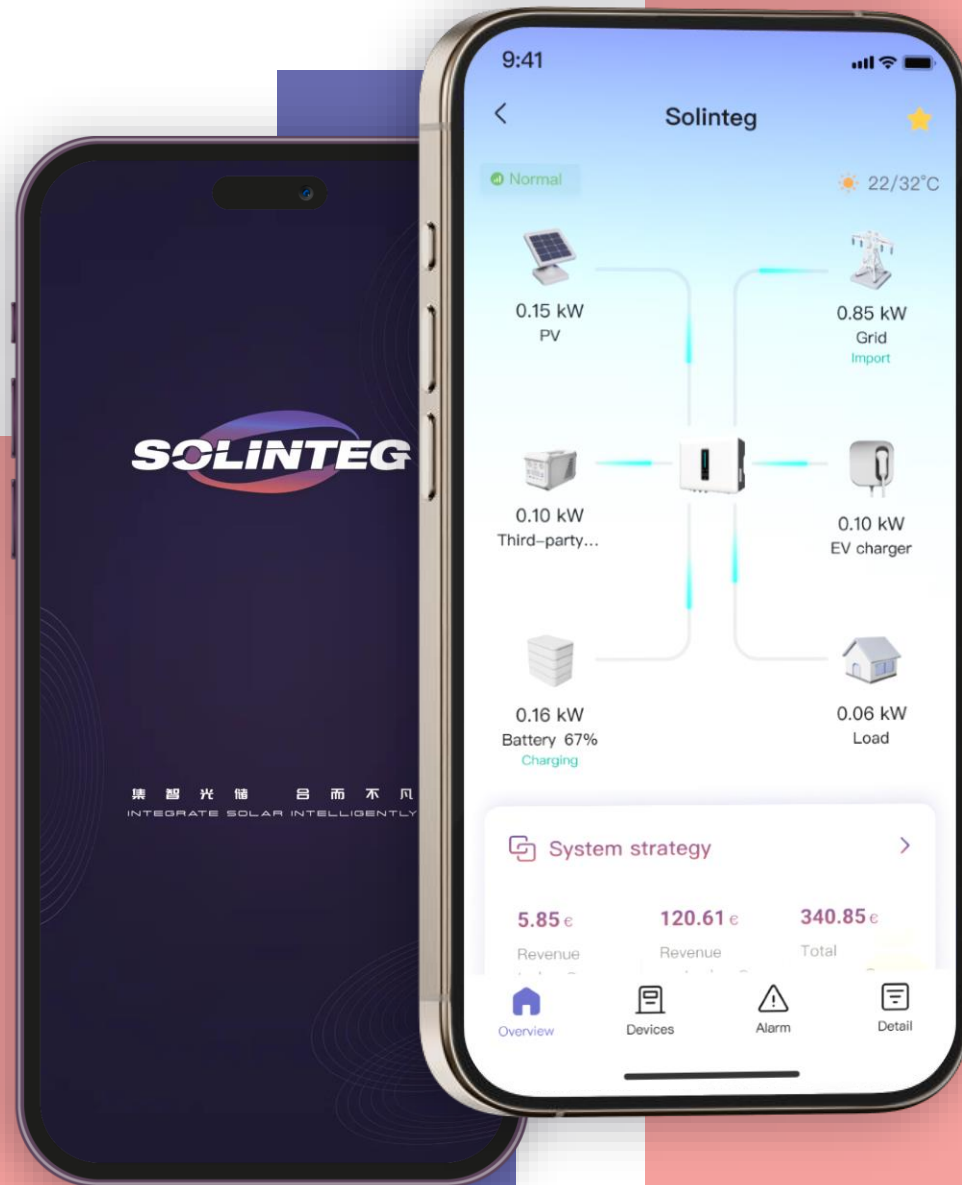
Start-Up Procedure

After completing pre-checks, follow these steps for the initial power-on:

- 1. DC Power Start:** Switch the DC switch to "ON". (This switch may be built into the inverter or installed by the user). Wait 5 minutes for the system to complete its start-up sequence.
- 2. Battery Turn-On:**
 - Step 1: Turn on QF1 (Cabinet Auxiliary Power).
 - Step 2: Turn on QF12 (Cabinet Air Conditioner).
 - Step 3: Turn on QF11 (AC Power to HV Control Box).
 - Step 4: Turn on QFm1 (DC Breaker), then turn on QFm2 to power on the battery system.
 - Step 5: Turn on QFm3 (AC Power to HV Control Box).
 - Step 6: BMS Self-Check: The red LED flashes once, then the green cabinet LED stays on (if normal).
- 3. AC Circuit Energization:** Close the AC-side circuit breaker.
- 4. Grid Synchronization:** The inverter will start normal operation when irradiance and grid conditions meet requirements. Connecting to the grid may take from a few minutes to tens of minutes, depending on local safety codes and actual grid status.
- 5. Status Check:** Monitor the LED indicators to confirm normal operation.
- 6. Network Setup:** Follow the instructions to complete the network configuration.



I. App Download



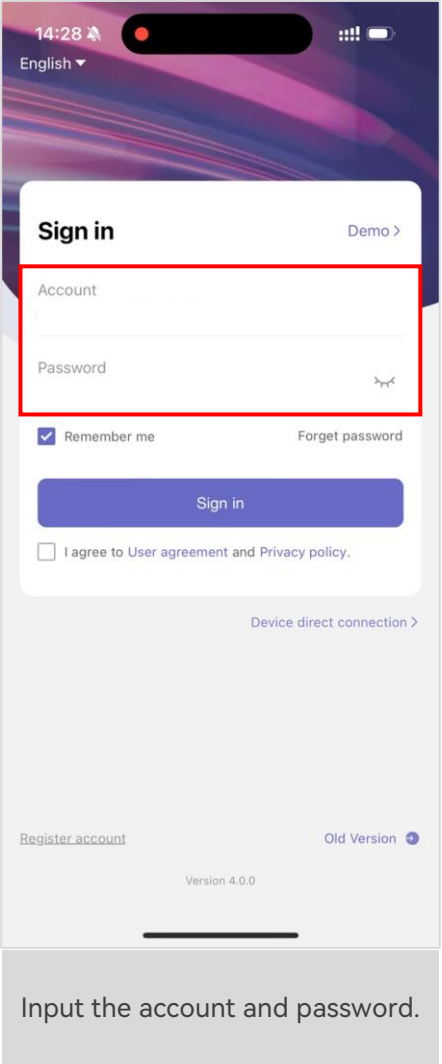
SOLINTEG

Monitoring App - IntegHub



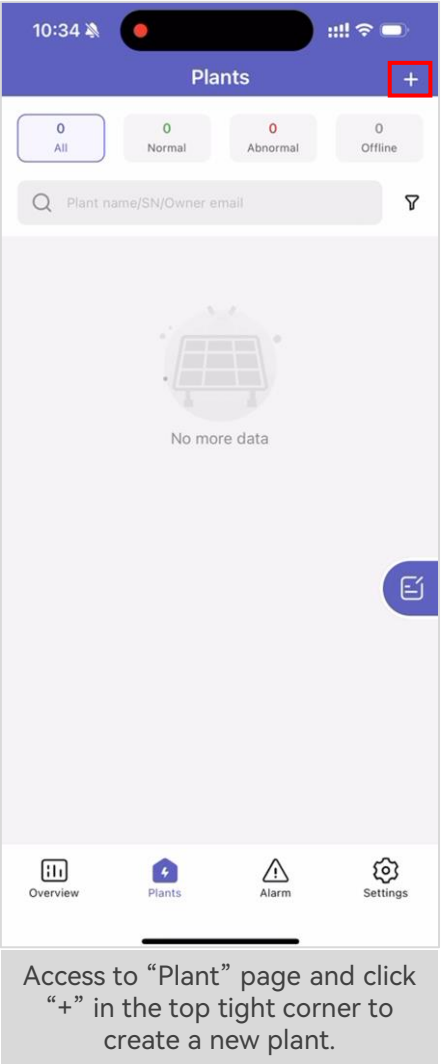
*The monitoring platform is subject to continuous updates. All screenshots in this document are for reference only; the actual interface shall prevail.

II. Create a New Plant



Input the account and password.

*Organization account can be requested from Solinteg after-sales team.



Access to “Plant” page and click “+” in the top tight corner to create a new plant.

< New plant

Owner email

*Related organization Solinteg Test

*Plant name

*Plant address

Detailed address

*Country/Region 中国大陆 (China mainland)

*Timezone UTC+08:00

*Grid connection time 2024.07.19

*Plant type

*Capacity kWp

Battery capacity kWh

*Currency unit CNY(¥)

*Profit per kWh 1.0

*Cost per kWh 1.0

Plant cover

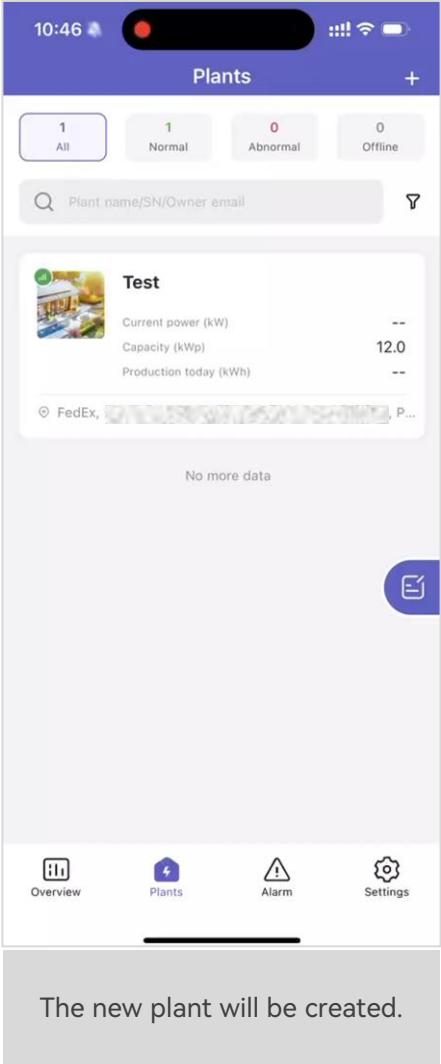
Complete

Select the organization to which the plant belongs.

Basic information of plant.

For calculating the revenue.

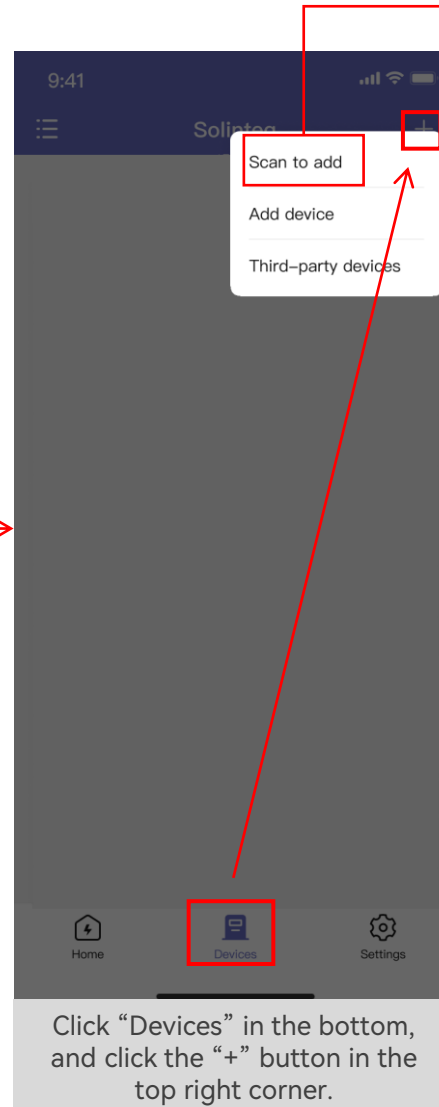
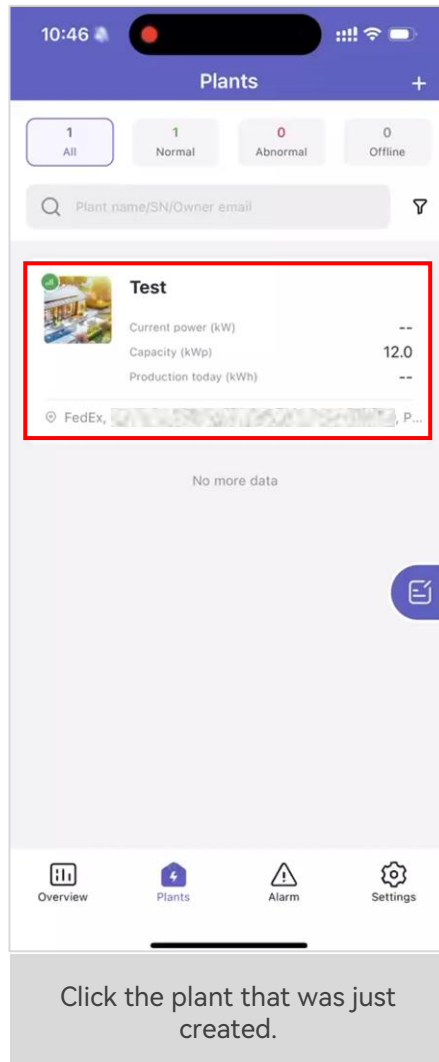
Complete the required information, with an asterisk (*) indicating mandatory fields.



The new plant will be created.

III. Add the Device

Method 1: Scan to add

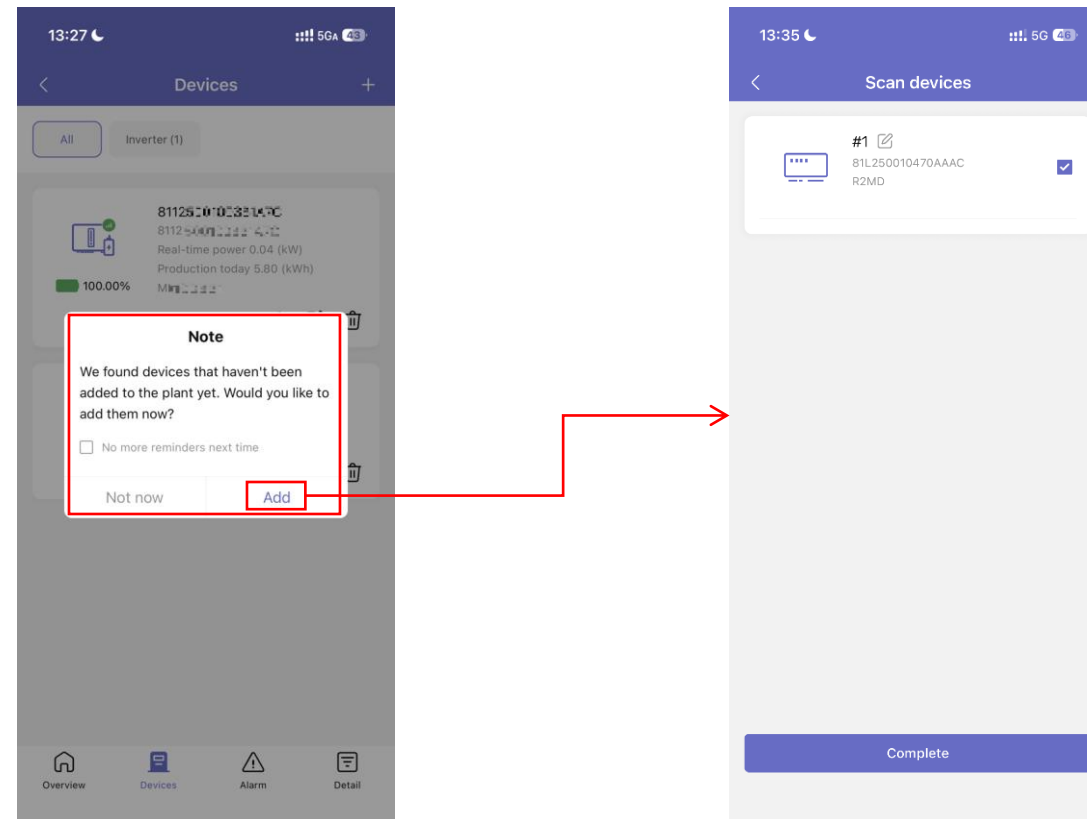


III. Add the Device

Method 1: Scan to add

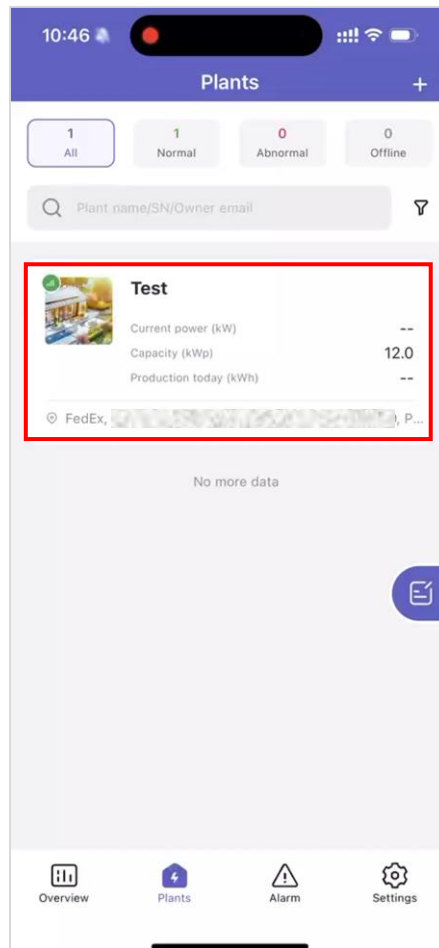
Important Notice: R2MD and R2MD-EXANT should be added to the plant

- ① There are two communication dongles for the PTH cabinet. One is “R2MD” for the inverter, and another is “R2MD-EXANT” for the battery.
- ② The dongles “R2MD” and “R2MD-EXANT” are usually added automatically with the inverter and battery. If not, the system will auto-scan and prompt you to add them manually, as shown in the image below.

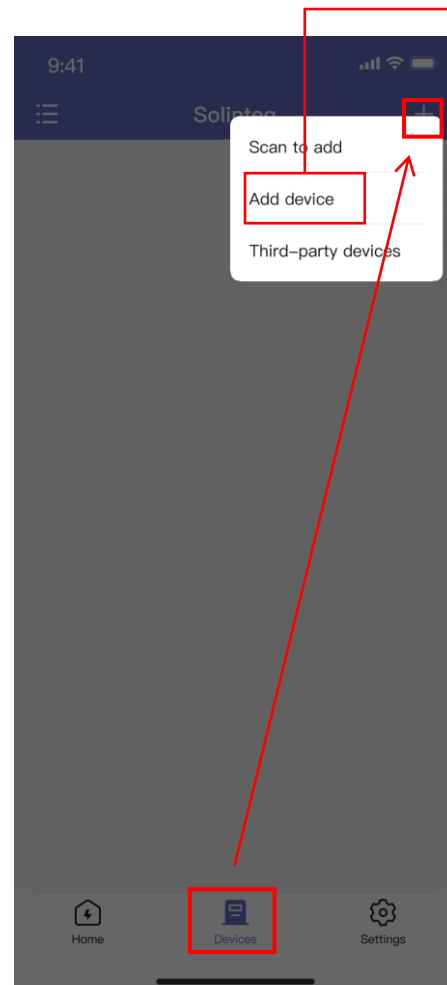


III. Add the Device

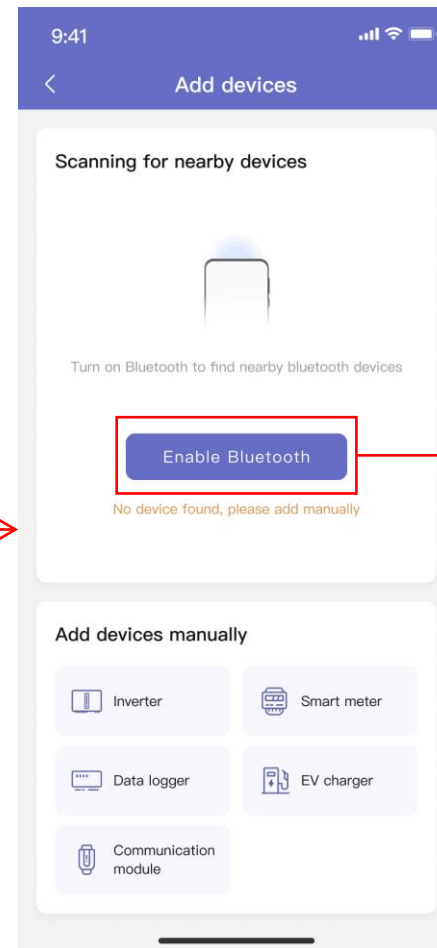
Method 2: Bluetooth connection



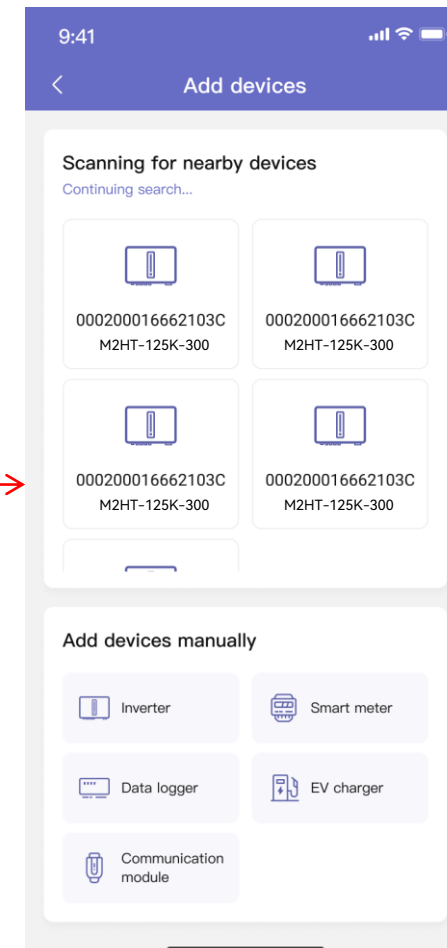
Skip the "Direct Connection", create a new plant and click the plant.



Click "Devices" in the bottom, click the "+" button in the top right corner, and then click "Add device".



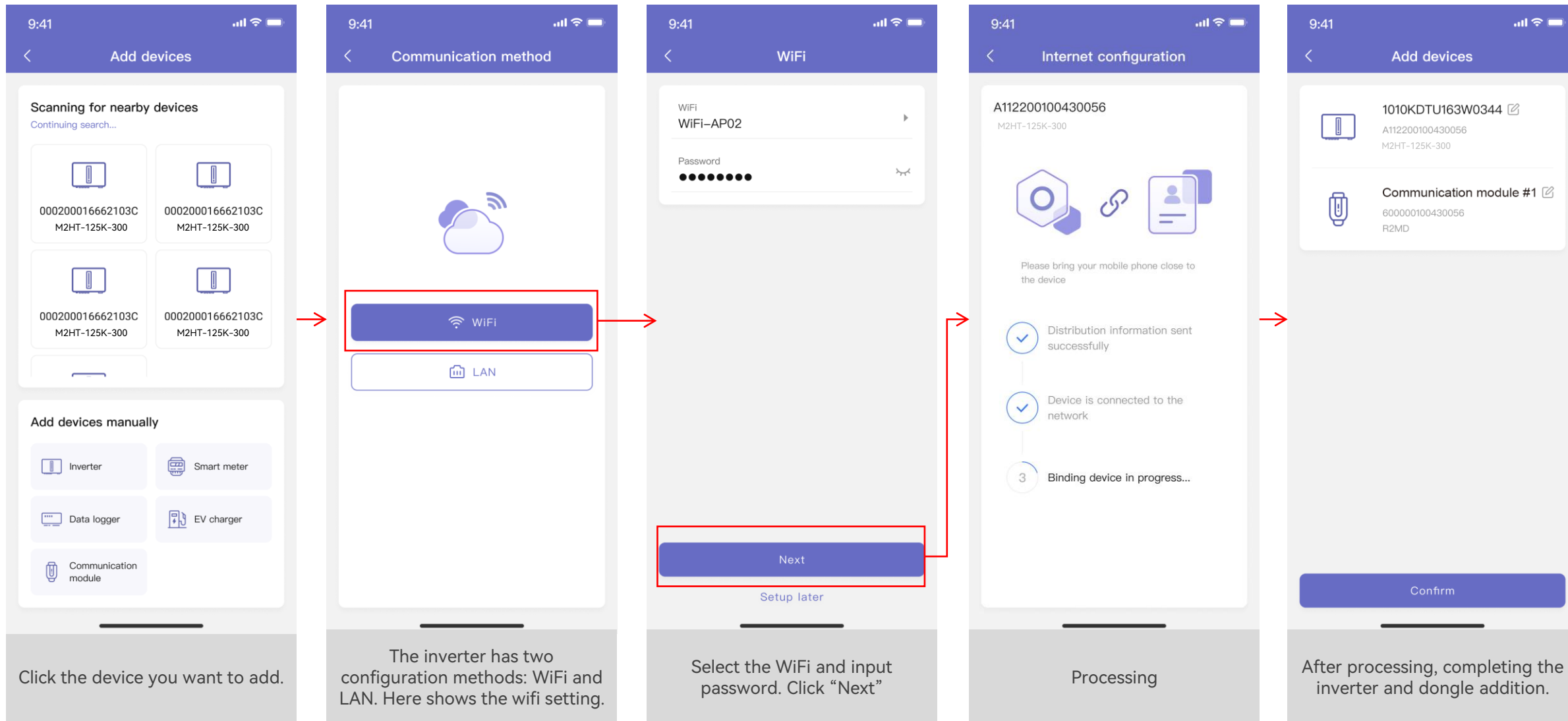
Click "Enable Bluetooth"



The nearby devices will be found.

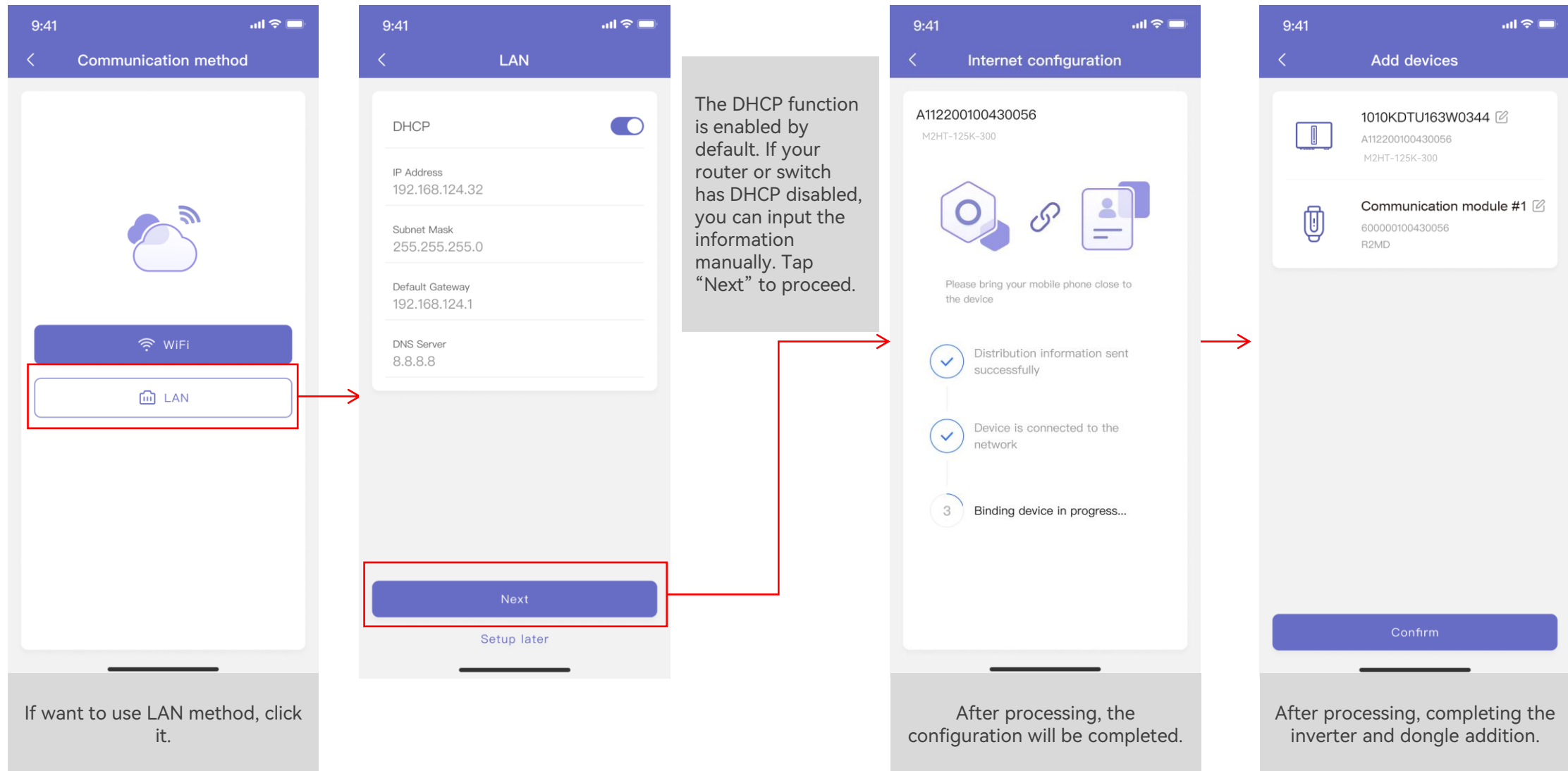
IV. Configure the Network

Method 1: Wi-Fi setting

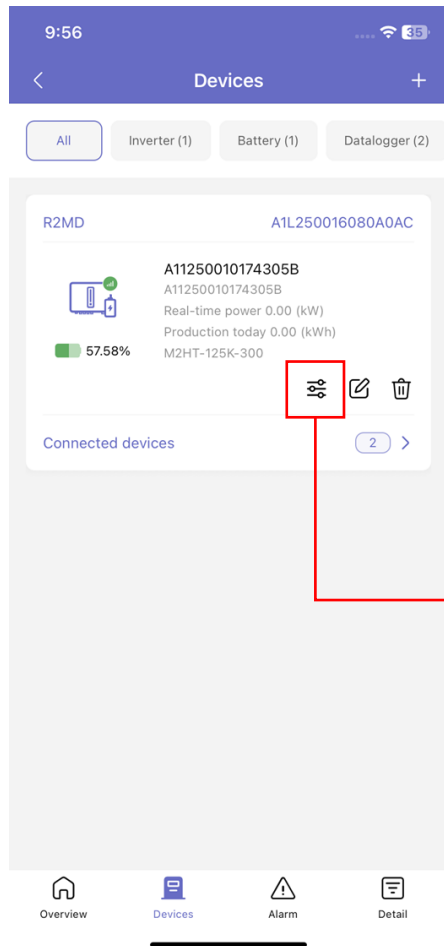


IV. Configure the Network

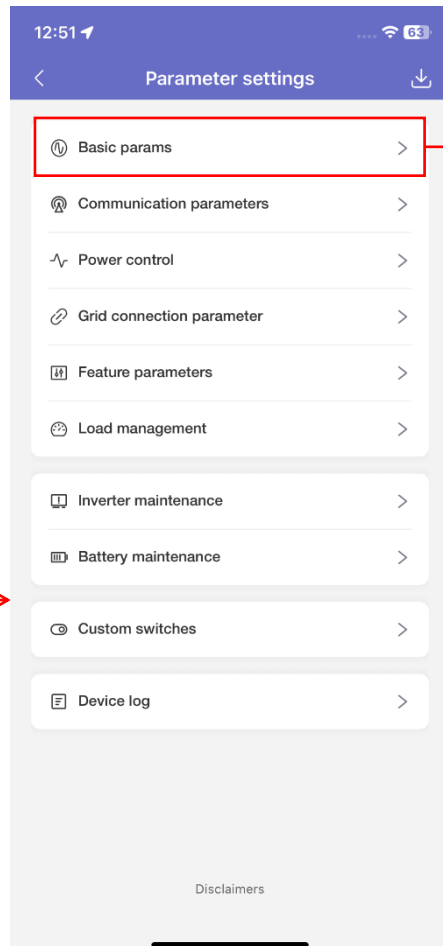
Method 2: LAN setting



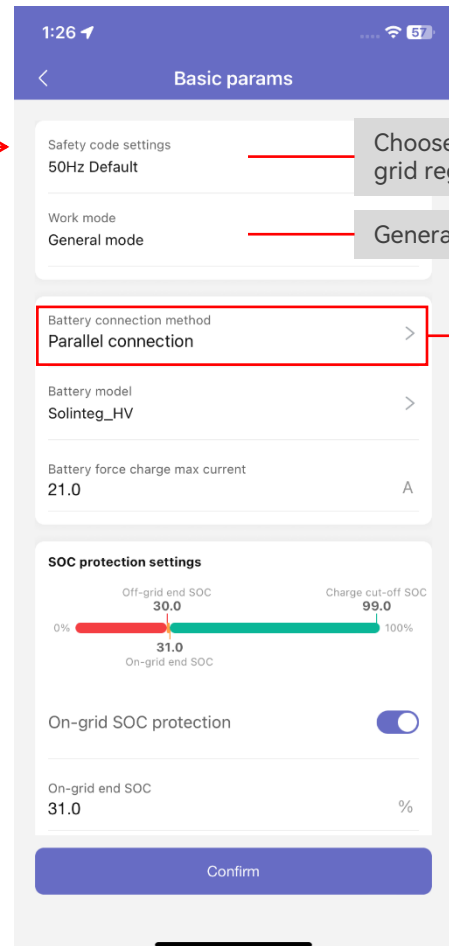
V. Inverter Configuration



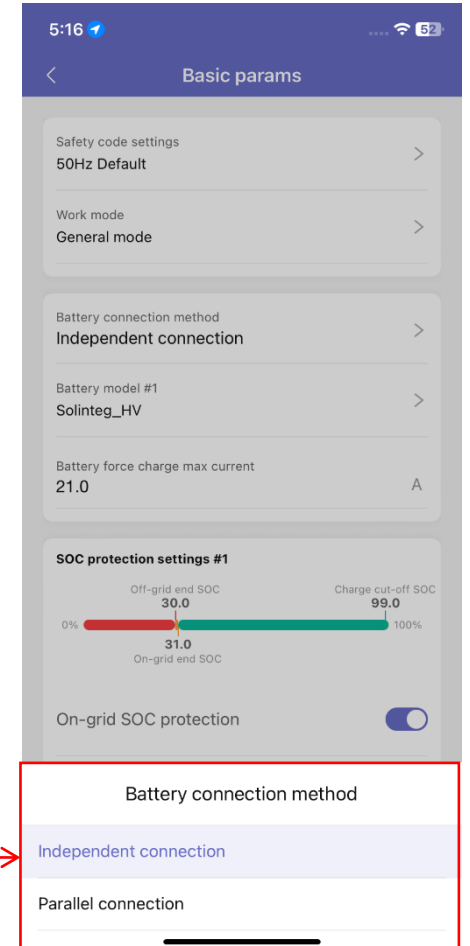
After adding a device, you can see the added device on the “Devices” page.



Click this button, jump to the “Parameter settings” page.



Basic parameters configuration



Select battery connection method based on site conditions.

V. Inverter Configuration

Parameter settings

- Basic params
- Communication parameters
- Power control
- Grid connection parameter
- Feature parameters
- Load management
- Inverter maintenance
- Battery maintenance
- Custom switches
- Device log

Basic params

Safety code settings
50Hz Default

Work mode
General mode

Battery connection method
Independent connection

Battery model #1
Solinteg_HV

Battery force charge max current
21.0 A

SOC protection settings #1

Off-grid end SOC: 30.0
Charge cut-off SOC: 99.0
On-grid end SOC: 31.0

On-grid SOC protection: ☒

BAT#1 setting

Battery model #1
Solinteg_HV

Battery force charge max current
21.0 A

SOC protection settings #1

Off-grid end SOC: 30.0
Charge cut-off SOC: 99.0
On-grid end SOC: 31.0

On-grid SOC protection: ☒

On-grid end SOC: 31.0 %
Off-grid SOC protection: ☒
Off-grid end SOC: 30.0 %
Charge cut-off SOC: 99.0 %

BAT#2 setting

Synchronize configuration from Battery 1: ☒

Battery model #2
Solinteg_HV

SOC protection settings #2

Off-grid end SOC: 29.0
Charge cut-off SOC: 88.0
On-grid end SOC: 35.6

On-grid SOC protection: ☒

On-grid end SOC: 35.6 %
Off-grid SOC protection: ☒
Off-grid end SOC: 29.0 %
Charge cut-off SOC: 88.0 %

Battery connection method

- Independent connection
- Parallel connection

Parallel connection (Only one battery)

Independent connection (Two batteries connected)

Annotations:

- Select battery model.
- Set the max force charging current.
- Turn on or off as needed. It is recommended to keep it on and set the on-grid SOC higher than the off-grid SOC.
- Enable "Synchronize" if BAT#2 settings match BAT#1.

V. Inverter Configuration

Parameter settings

- Basic params
- Communication parameters**
- Power control**
- Grid connection parameter
- Feature parameters
- Load management
- Inverter maintenance
- Battery maintenance
- Custom switches
- Device log

Disclaimers

Communication parameters

Modbus address
246

Confirm

Power control

Export limit ☒ Turn on or off as needed of export limit.

Power to grid
0.0 kW If on, set the maximum export power.

Import limit ☒ Turn on or off as needed of import limit.

Power from grid ①
650.0 kW

Export control ①
Hard

Select export limit device
Meter

AC power setting ①
Rated

Max AC power limit
0.00 kW
Correct value range[0.00,137.50]

DI port configuration
Off

\$14a switch ① ☐

Confirm

Export control

Hard
Inverter stop generation

Soft
Output power = Feed in grid set value

Export control mode upon meter/CT communication failure.

Select export limit device

CT only

Meter

Select CT or Meter based on actual connection.

DI port configuration

Off

DRM

RCR

Adapted to power dispatching devices RCR and DRM.

V. Inverter Configuration

The image displays three sequential screenshots of an inverter configuration application, illustrating the steps to configure various parameters. Red boxes and arrows highlight key settings and provide explanatory text.

Screenshot 1: Parameter settings
The 'Feature parameters' option is highlighted with a red box. A callout states: **Not recommended to change.**

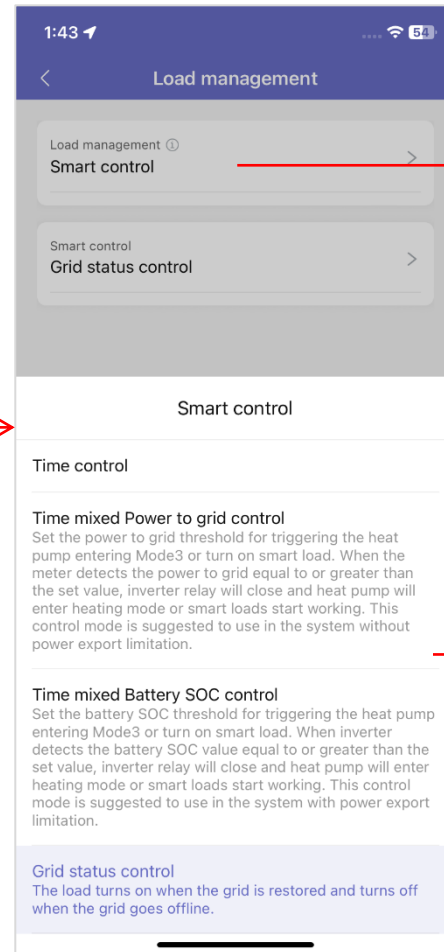
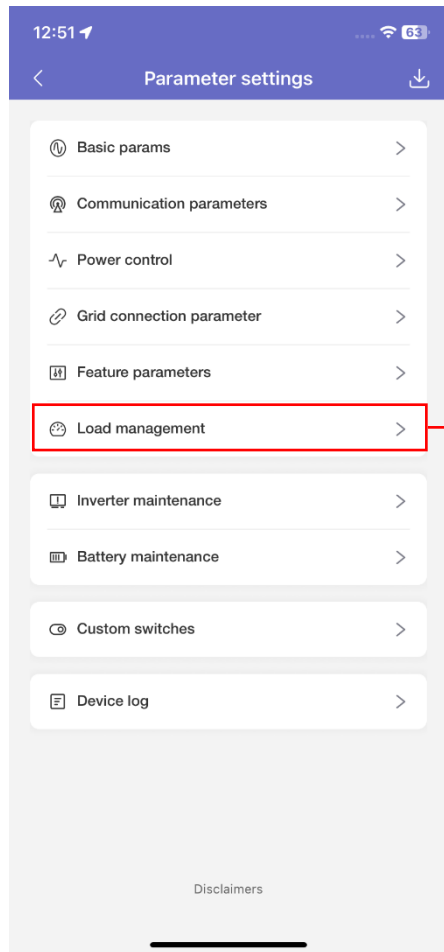
Screenshot 2: Feature parameters
This screen shows various settings with the following callouts:

- Multiple inverter role:** Set to **Independent**. Callout: Select "Independent" in single inverter application, select "Master" or "Slave" in parallel system.
- CommsWatchDog:** Enabled (toggle on). Callout: Enable: Stop on EMS communication loss. Disable: Continue running on EMS communication loss.
- On/Off-grid switch:** Enabled (toggle on). Callout: If turn on, the inverter can realize auto switch between on-grid and off-grid when grid fail or recover.
- MPPT parallel connection:** Enabled (toggle on). Callout: Turn on or off as needed.

Screenshot 3: Advanced settings
This screen shows additional settings with the following callouts:

- Unbalanced output:** Enabled (toggle on). Callout: Default to open to enable phase unbalanced output on the on-grid side.
- N-PE check:** Disabled (toggle off). Callout: If there are no special requirements, you can save the default settings.

V. Inverter Configuration



“Turn off” by default. “Manual mode” and “Smart mode” can be used in different situations to increase the utilization rate of green power.

Under "Smart Control," choose from four modes: Time control, Time-mixed grid export, Time-mixed SOC, or Grid status control

V. Inverter Configuration

Parameter settings

Basic params

Power control

Grid connection parameter

Feature parameters

Load management

Maintenance

CT Test

Disclaimers

Not recommended to change.

Feature parameters

Multiple inverter role
Independent

On/Off-grid switch

MPPT parallel connection

Unbalanced output

Off-grid overload reconnection delay
30 s

Off-grid voltage setting
230.0 V

N-PE check

Emergency shutdown mode
Normally open

Confirm

Select "Independent" in single inverter application, select "Mater" or "Slave" in parallel system.

If turn on, the inverter can realize auto switch between on-grid and off-grid when grid fail or recover.

Turn on or off as needed.

Default to open to enable phase unbalanced output on the on-grid side

If there are no special requirements, you can save the default settings

Load management

Load management

Turn off

Turn off

Manual mode

Smart mode

Load management

VI. E2BR Battery Monitoring on IntegHub APP

① Overview page for E2BR battery

Switch to the “Devices” page. Click “Connected devices” or “Battery”

Click the battery

Battery overview page 1

Comm. status: normal / offline

Battery SOC data

Battery status: Charging / Discharging / Idle / Open circuit

Estimated charge/discharge time, updated in real time.

Current power curve, with data points every 3 seconds. (Total 1 minute)

Real-time information on the battery, refreshed every minute. Such as SOH, capacity, voltage, current, resistance, and so on.

Basic information of the battery, such as device model, rated capacity, SN, name, firmware version, and so on.

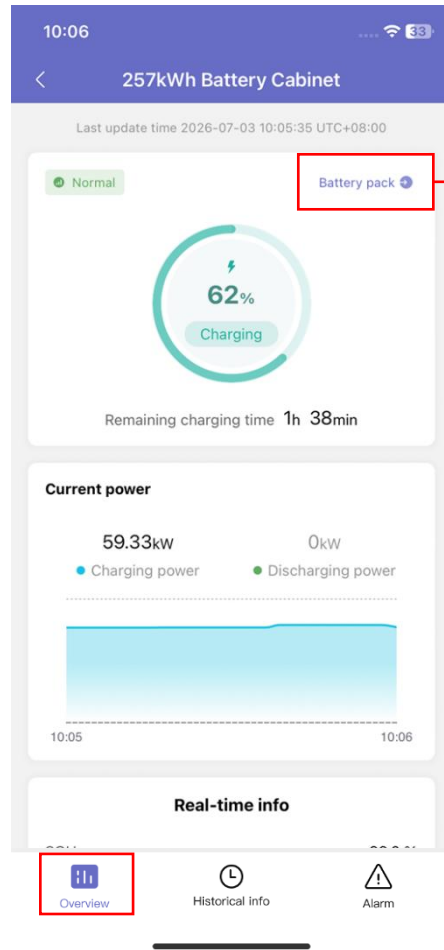
Battery overview page 2

Real-time info	
SOH	99.0 %
Operating status	Normal
Battery cluster capacity	172.3 kWh
Battery cluster current	-68.7 A
Battery cluster voltage	864.8 V
Total charged	7325.4 kWh
Total discharge	7003.9 kWh
Max. cell voltage (ID)	3379.0mV (13#11)
Min. cell voltage (ID)	3372.0mV (16#16)
Max. cell temp (ID)	29.5°C (03#08)
Min. cell temp (ID)	24.5°C (07#04)
Positive insulation resistance	34013 KΩ
Negative insulation resistance	51558 KΩ
Charging times	--
Discharging times	--

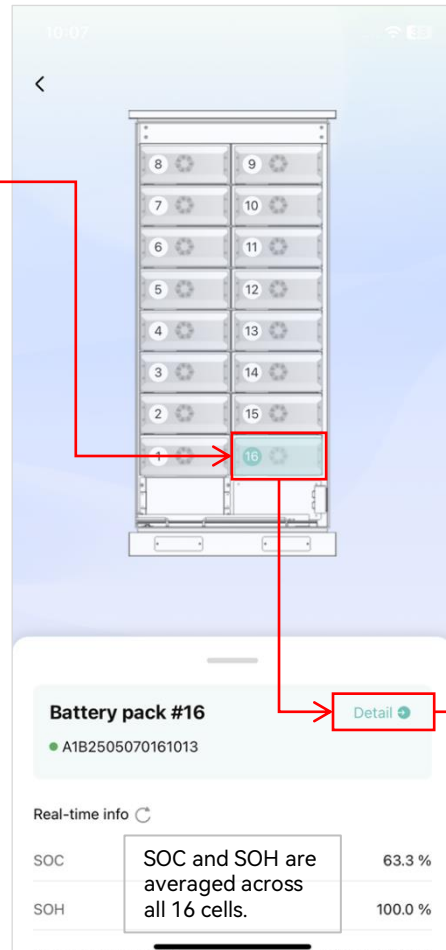
Basic info	
Device model	E2BR-S257K-C
Rated capacity	257.2 kWh kWh
BESS SN	A1B25004050210L3
Device Name	257kWh Battery Cabinet
Firmware version	5010711
Hardware version	--
Superior device	A11250010174305B

VI. E2BR Battery Monitoring on IntegHub APP

② Battery pack & cell data for E2BR battery



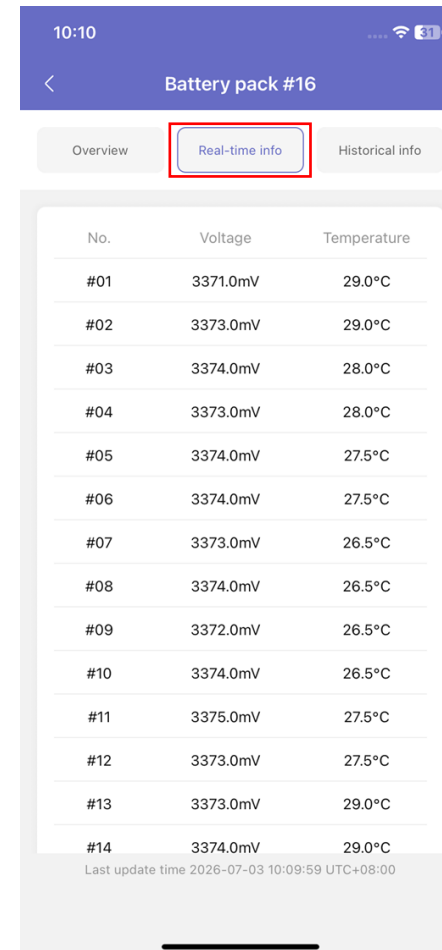
Click "Battery pack" on the battery overview page.



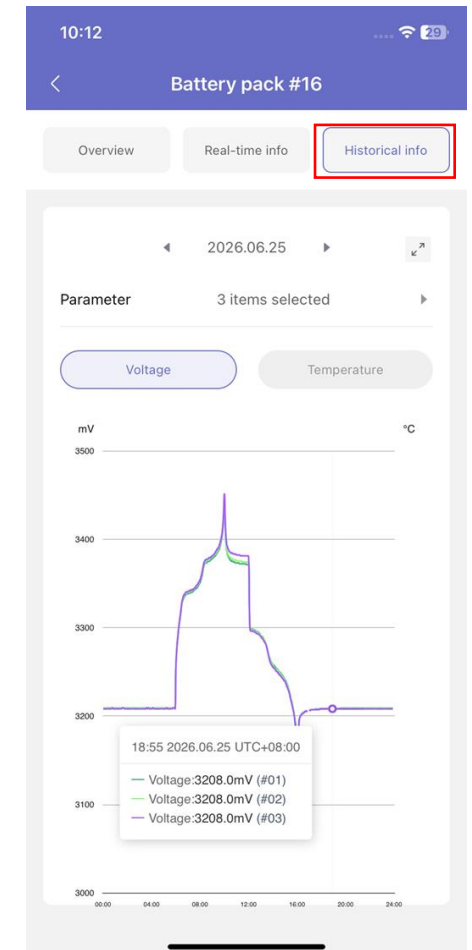
Click any pack image to check the info, then click "Detail" to that pack's detail info page.



Overview page shows Max & Min cell volt and temperature curves of the battery pack.



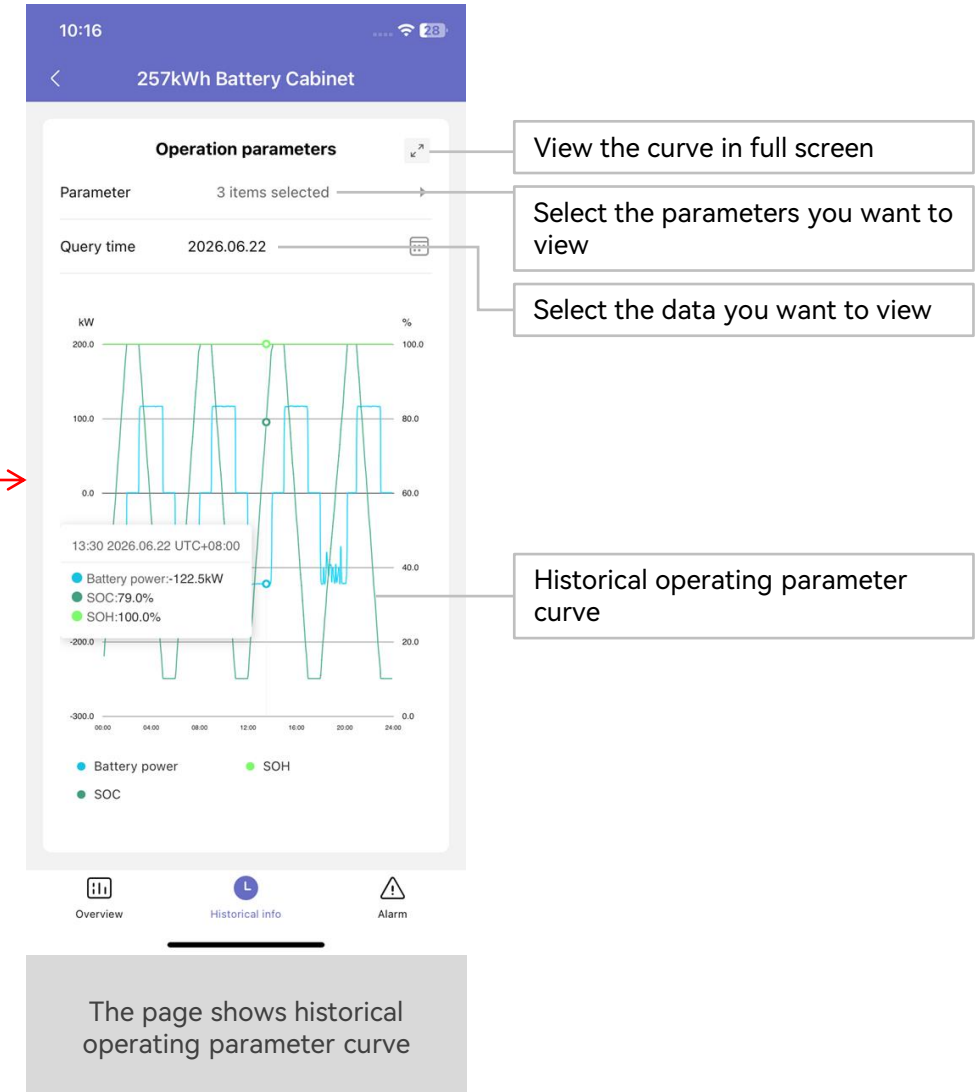
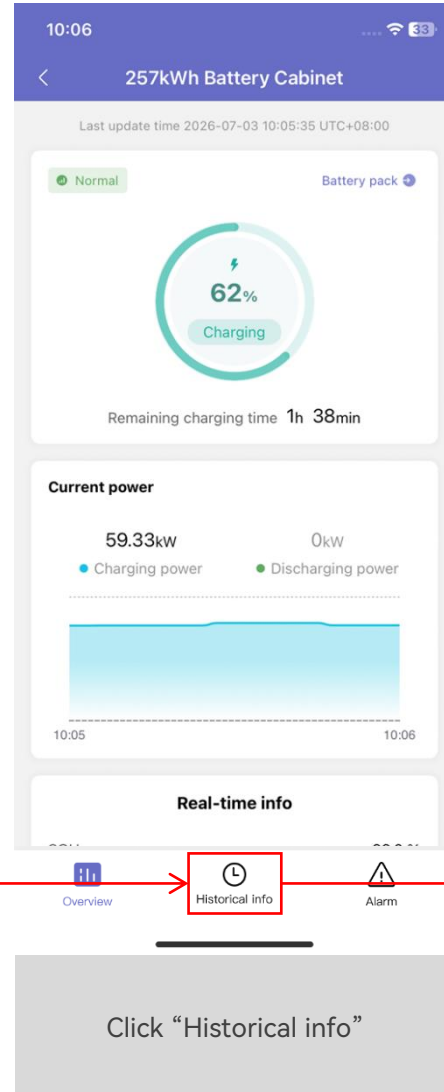
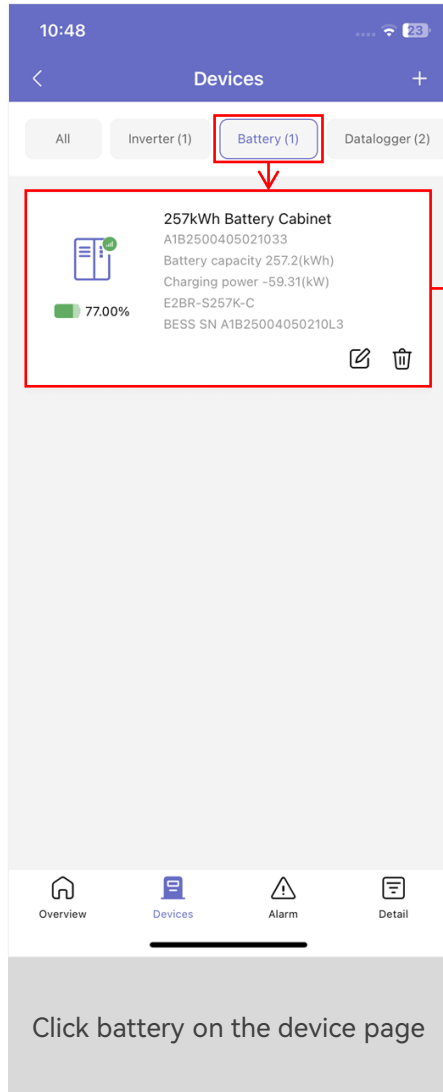
Real-time info page shows individual cell voltage and temperature for all 16 cells.



Historical Info page shows historical volt and temp curves for selected cells.

VI. E2BR Battery Monitoring on IntegHub APP

③ Historical for E2BR battery



THANK YOU

www.solinteg.com